THE Country GUIDE

SEPTEMBER, 1953

HIDE-A-BED gives you a smart sofa with "guest room" tucked inside!

If you're short on rooms, choose Hide-A-Bed — a fully tailored, beautifully upholstered sofa *and* a comfortable bed.

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On your Hide-A-Bed you can get your Beautyrest — the world's most restful and most wanted mattress — for Beautyrest mattresses are available in all styles of Hide-A-Bed.

[Photo by H. Armstrong Roberts.

THE Country GUIDE

From Cover to Cover

SEPTEMBER, 1953

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In this space for the last three issues there has appeared a monthly weather forecast. Notwithstanding the general uncertainty surrounding long-range forecasting, it proved to be surprisingly accurate, if a preponderance of favorable opinion, received from many areas of the prairie provinces, is a reliable criterion.

We regret to announce that owing to the untimely death in July of the forecaster, Ken Stanley, this service must be discontinued. Mr. Stanley's death occurred shortly after he had prepared the August-September Weathercast.—Editor.

Tale of the Seven Black Bears

If this were a fish story no one would be expected to believe it. The author says it happened to three of his neighbors, and he saw the evidence

by **G. H. HERBERT**

ONE of the strangest experiences that ever befell the pioneer settlers located in the wilds of northeastern Saskatchewan happened to Carl Althouse and Hugh and Claude Salmond in the fall of 1950. They were located in the northeast corner of the province, about 60 miles south and east of Hudson Bay Junction.

To make ends meet and to prove their right to existence, they were cutting cordwood not very far from their homesteads. Carl Althouse and Hugh Salmond, returning to their shack one evening after a hard day's work, were amazed to find that it had been ransacked, all their food apparently eaten, pots and dishes smashed, and the bed clothes and blankets and even the curtains torn to shreds. Tracks around the shack gave evidence that a bear, or bears, were the guilty marauders. They decided to do something about it.

Bright and early next morning they started on the trail, over which a light scruff of snow had fallen. The tracks showed that Mr. Bear was uneasy. He had back-tracked two or three times, never stepping out of his original footprints. Also, he had taken occasional tremendous leaps to the cover of huge trees, where the ground was bare, thus making the trail very difficult to follow. About noon they located a den, such as it was. It was a huge hole scooped out of a beaver dam; and the appearance of the ground around about it being in a much trampled condition, indicated more than one bear.

They had seen some unusual movements in the branches of a large black poplar tree located some distance off the trail along which they had come, so Hugh back-tracked while Carl started to circle the tree. Almost immediately Carl heard Hugh shoot, and also yell for help. He rushed toward the sound, and came upon a scene which beggars description . . . It could be described as a Bear Tree . . . Imagine, if you can, a huge black poplar tree with a foliage consisting of black bears. Five huge black bears, some clambering up, and others making their way awkwardly down.

Hugh had only three shells for his rifle, hence his call for assistance. By the time Carl arrived, he had accounted for two. He was about 20 yards from the tree, with the other three poised in the lower branches ready to jump. Carl arrived just in time, and by well-directed shots accounted for two more. Score: four black bears. One managed to scramble off into the underbrush. They followed it for some time but they were unable to catch up with it, and as it was nearing dusk they decided to return to the shack for rest and refreshment.

THE next day, Carl Althouse and Claude Salmond were cutting logs not far from the village of High Tor when their dog started to bark and yelp frantically. They seized their rifles and rushed toward the sound. They found the dog, and they also discovered a huge black bear standing erect, with its paws resting against a large black poplar tree, as if it were just about to climb.

On seeing them it apparently changed its mind, and disappeared into the thick underbrush. Noticing that the branches at the top of the tree were moving and shaking in a very unusual manner they decided to investigate. They were in for another surprise: Away near the top were two cubs clinging precariously to the branches. The two men were not too keen on taking action right then; it was dangerous enough to tackle a mother bear with cubs in the day time, and by then it was getting pretty dark.

Claude said he had heard that if you hung a light on the lower branches of the tree which temporarily housed a bear, it would be scared to come down past the light. They decided to try anything once, and obtaining a lantern from their shack, they hung it on one of the lower branches.

Bright and early next morning they were back at the tree. They got another surprise . . . their strategy had worked even better than they had hoped. At the top of the tree they were astonished to view one mother bear and two cubs.

Claude and Carl promptly went into action, killing the old bear first and then accounting for the two cubs.

They did not feel very good about killing the cubs, but they had become tired of losing their grub and having their clothing destroyed, especially when they were some distance away from home. V

CROP DAMAGE by DUCKS

The pintail duck in the inset looks friendly enough, but when he and his relations turn out in strength they can be a real enemy of crop owners.

Study at the Delta Waterfowl Research Station has thrown some light on controlling duck damage

***by* RALPH HEDLIN**

THE reeds waved in the half light of the chill pre-dawn. The ducks in the marsh drowsed, then began to stir. In the distance a coyote howled, a goose honked sleepily, and ducks nearby began to chatter and quack. Soon the ducks were leaving the Delta marsh at the southern end of Lake Manitoba, 16 miles north of Portage la Prairie and were flying south to their feeding grounds.

The guns of sportsmen, and the farmers' fields, are the two conflicting phenomena in the whole difficult question of duck damage to crops. The sportsman likes to shoot and both farm and city sportsmen wait impatiently for the shortening days of September when once more they can indulge in their favorite pastime of duck hunting. On the other hand, in a wet fall, many farmers are driven to distraction by the "robber" ducks that raid their fields and eat and trample the swathed grain.

A study of the problem must recognize both points of view. Owners of swathed grain cannot be expected to blithely tolerate depredations on their means of livelihood. At the same time the rights of sportsmen must be given some consideration. The resolution passed last year by a meeting of over 100 farmers at Baron, Alberta, that ducks be removed from the game list, classed as a pest, and reduced to a number where they can do no damage, although understandable, ignores the rights of Canadian sportsmen and the income gained by Canada from local and immigrant hunters. Those who refuse to recognize the farmers' problem are equally unrealistic.

Scientists at the Delta Waterfowl Research Station are capably representing both points of view. A year ago they initiated a research program designed to determine means of stopping damage to farmers' crops without damaging the duck crop. Incomplete and preliminary results suggest that they may succeed in solving the two apparently irreconcilable facets of the problem.

A word should be said about the Delta Waterfowl Research Station. It was started in 1931 by James F. Bell, a wealthy Minneapolis industrialist, in a location at the southern end of Lake Manitoba, 75 miles northwest of Winnipeg. To broaden and ensure the perpetuation of the work the sponsorship was later taken over by the North American Wildlife Foundation, a voluntary organization consisting of interested Americans and Canadians. Supervision is provided by the Wildlife Management Institute. Financing is by voluntary donations. The Station director is H. Albert Hochbaum.

In the words of Mr. Hochbaum, the application of science to the management of wildlife resources still lags, because we lack many essential biological facts. "The functions of the Delta Waterfowl Research Station, therefore, are to study ducks at their source, to correlate the work and interests of the different agencies concerned with management, and to direct the information to useful ends," he said. "Conclusions at hand are but a beginning. As pressures against the birds grow, year by year, we must apply this knowledge to control the variable factors affecting the waterfowl populations. The goal is to accelerate population growth—to combat limiting factors with wise management and use."

If limiting factors are to be combatted, Mr. Hochbaum and his associates realize that farm crops must be protected. If increased wildlife populations mean increased farm losses, the owners of the fields will not put up with it. And the scientists at the Delta Waterfowl Research Station would be the last to suggest that they should.

AN area of 15 sections was outlined as a study area last year. It included crop-rich fields and duck-rich marshland. Ted Dillon of the Station staff and Jack Howard of the Manitoba Department of Mines and Natural Resources were placed in charge of the project, under the supervision of Mr. Hochbaum as director.

On the basis of work done in the first year, it is possible to make some tentative suggestions. The work was essentially preliminary, and weather sufficiently dry to permit harvest in the Delta area, reduced the possibility of duck damage and consequently lowered the applicability of the findings. Also, the investigation was local; and for these reasons, modifications of the recommendations may prove necessary.

The suggestion is made that there should be early, daily patrol by game guardians to warn farmers immediately after ducks invade their fields. This would be restricted to areas of large duck populations. Its importance is related to the fact that the scientists have found that extensive damage is frequently done before the owners realize that ducks are visiting their fields. After ducks have fed in a field for several days they are difficult to discourage.

As soon as it is found that ducks are visiting a field, or if their visits are expected, scaring devices should be erected. The Station has used modifications of the scaring devices recommended by the Canadian Wildlife Service. The one most generally used is a brightly colored Visi-net bag (of the kind commonly used for shipping onions) filled with straw and hung from the end of a 10 or 12-foot pole, placed in the ground at a 45-degree angle. A few feet of Spirolum Whirler (the bright metal strips used by filling stations to attract the attention of motorists) attached (*Please turn to page* 54)

[Guide Photo

Looking toward the marsh from the buildings at the Delta Station.

Good Morning

by **MARK HAGER**

WHEN I was a boy, I walked through two miles of woods to get to our schoolhouse, and I would take my father's twenty-two rifle with me and hide it in a hollow tree before I got to the schoolhouse, and get it as I came home in the evening.

One evening, coming from school, I ran into a community uprising at Mr. Epperly's house. Mr. Epperly's cow had gone mad and was bawling lonesome bawls and twisting the young apple trees out of the ground with her horns, and the whole community was demanding that Mr. Epperly's dog, Old Ranger, be shot as Old Ranger had fought and killed the mad dog that bit the cow.

Mr. Epperly wanted to know if it wouldn't be safe to put Old Ranger in the stable or someplace and keep him penned up until the danger period was over, but the neighbors said no; that Mr. Epperly's children might slip in and feed him through the cracks and get bit.

Mr. Epperly said he could not do it himself, and wanted to know who would volunteer to do it, but none of the men would.

Mr. Epperly came to me, and said, "Joe, why can't you take him with you through the woods on your way home and do it?"

I told Mr. Epperly I did not want to shoot Old Ranger. I saw Mr. Epperly's three kids were already keeping close to the old dog.

Mr. Epperly then pulled a one-dollar bill from his pocket.

"I will give you this dollar bill if you'll do it," he said.

I considered. I had never yet had a one-dollar bill all my own, and while the idea of shooting Old Ranger did not appeal to me, it did seem like a thing that was demanded by the whole community, and they all put at me to do it, trying to make me feel like a kind of hero, and pointed to the danger to Mr. Epperly's children. Then Mr. Epperly put a piece of clothesline around Old Ranger's neck and I started with him. The Epperly kids began to cry.

As I walked through the woods by the little path, I started looking for a place suitable to shoot a dog and leave him lay. I saw a heavy clump of wild grapevines, and I led him down under there and then got back up in the path. Old Ranger looked at me and whined and wagged his tail. He wanted to come to me. I recollected always seeing him wherever there was a splash of sunshine in Mr. Epperly's yard when I would pass there and Mr. Epperly's kids would join me for school.

I WENT down and untied Old Ranger and walked on. I came to a place where there was a hickory grove in a little flat where the underbrush was thin. I recollected how Old Ranger liked to go to the hickory groves and tree squirrels. I led Old Ranger down and tied him close to the trunk of a big hickory tree.

I started to take aim, but Old Ranger started prancing and looking up the tree. I remember then hearing Mr. Epperly tell how Old Ranger would do that when he'd tree a squirrel and Mr. Epperly would raise the gun to shoot, and I could not fool Old Ranger like that.

Besides, there was too much light and Old Ranger could see me take aim. I decided to wait for the gloom. Soon as the sun dropped a few more feet behind the Wilson Ridge, there would be gloom, and maybe Old Ranger would not see so plainly how I pointed the gun.

While I waited for the gloom, the burning started in my pocket. I took the one-dollar bill out. I had a feeling there was something nasty about it.

While I thought of that, Old Ranger reared and barked and surged at the cord leash, and when I looked back out the path I saw Mr. Epperly's three kids, but they were running away. They had turned to run when Old Ranger barked. I guessed they had slipped off from their house and followed just to see where I left Old Ranger.

I walked the little path through the woods looking for a suitable spot.

The idea of shooting Old Ranger did not appeal to me, but it did seem like a thing demanded by the whole community and they all put at me to do it, trying to make me feel like a kind of a hero and pointed to the danger to Mr. Epperly's children. Mr. Epperly gave me a dollar bill to do the job

Illustrated by J. H. Petrie

The thought struck me that they would run back to their house and tell I had not shot Old Ranger yet, and that would set the folks to worrying again, and I took aim. I thought I had better fire in their hearing. I took aim at Old Ranger, but I could not touch the trigger the way he looked at me and tried to speak, so I fired in the air so the Epperly kids could say they heard the shot.

I stuck the dollar back in my pocket, went down and hugged Old Ranger around the neck. I knew I would never shoot Old Ranger. I took him and walked on. I got to the edge of our field. I climbed on the gate and sat a long time and considered. I tried to think up how I could explain to my mother why I had brought Old Ranger home with me so that she would not be scared. I could not decide how I could ever explain with a good face that I had a one-dollar bill in my pocket I had been given to shoot Old Ranger.

I remembered where I had seen an empty castor-oil bottle at the edge of the path. It was still there, and I got it, and stuck the one-dollar bill in it, and buried the bottle in some soft dirt under the corner of the fence.

My mother decided that since I had fired the shot, she would let me keep Old Ranger for a month, with the community thinking he was dead, but it was the hardest month I ever spent.

The Epperly kids would not walk with me to school. They would pucker up to cry when they saw me, and the other kids down at the schoolhouse, they would say with a sneer, "What did you buy with your dollar bill?"

I could not answer. I could not tell them about the castor-oil bottle under the fence corner or Old Ranger in our stable; the Epperly kids searched the woods on both sides of the path to our house, hunting for the body of Old Ranger, but they would not ask me where I had left him, and other neighbors spoke of how Old Ranger's great booming voice was missed.

Mrs. Epperly was kind to me. I met her in the road one day, and she told me how she had scolded the kids for treating me like that, "But," she added, "if it was to do over, I would not allow it done. The children . . . Mr. Epperly, too, they're half crazy."

THEN came the happy morning. "You can take Old Ranger home now, Joe," my mother said. "Been over a month. No danger now."

I went to the stable, got Old Ranger, and he reared and licked my face. I shouldered my book strap, and led Old Ranger down the path. I stopped at the fence corner and got the castor-oil bottle with the one-dollar bill in it. I had a time trying to hold Old Ranger's mouth shut so I could get in sight of the Epperly house before he barked.

At the right place where they could see us when they came running to the front porch, I let Old Ranger have his voice. Old Ranger let go with a great howl that rolled and rocked across the ridges, and the Epperlys came bounding. Mr. and Mrs. Epperly and the three kids. They alternated between my neck and Old Ranger's, and I don't know to this day which of us got the most hugging.

I handed Mr. Epperly the castor-oil bottle.

"Why did you do that?" he said.

"It felt nasty in my pocket," I said.

He tried to make me keep it and when I wouldn't, he just pitched it toward me and his three kids, and we started for the schoolhouse, feeling rich, with a whole dollar to spend.

It's Time to Light Up

Electricity has come. Now for the wiring.

Welding by electricity is both easy and convenient.

Power! And on its way to prairie farms, too.

Eighty thousand prairie farm homes will have electricity by the end of this year

by H. S. FRY

FORTY years ago not many farms in any part of Canada were served by electricity, and there were very few, if any, in the prairie provinces. About that time, Sir Adam Beck, now known as the "Father of Hydro," and the first chairman of the Hydro Electric Power Commission of Ontario, was vigorously and untiringly pursuing his objective of taking low-cost electricity to every home in the province.

Sir Adam was indefatigable in his efforts to bring hydro within reach of rural users, and to induce them to use it. Thirty years ago, after the Ontario Legislature had passed the Rural Hydro Electric Distribution Act, under which the government could pay up to 50 per cent of the initial capital cost of constructing rural power lines, Sir Adam's efforts in rural Ontario were intensified. He designed what came to be known as "Adam Beck's Circus," and travelled with it into rural communities. There he demonstrated how electricity might lighten farm work and add to the pleasures of farm living. The "Circus" was a lorry-type vehicle, covered with a canopy. On it were mounted several kinds of farm equipment, powered by electricity.

Among these was a milking machine. The story is told that on one occasion in a fairly remote community to which hydro had recently been brought, Sir Adam came with his circus to demonstrate the marvels of electricity. To those who came to see, he said that if someone would bring him a cow he would milk her by machine. The response was not very prompt, but at last one man, with a sly grin, volunteered. He returned shortly with the cow. She was a good-looking animal in excellent condition, and as Sir Adam and his helpers attached the milking machine and started the motor, the crowd grinned and chuckled. No milk came. Something was wrong. It turned out that the farmer had brought Sir Adam a dry cow.

Today, Ontario Hydro has found 200 uses for electricity on farms, and calculates that 85 out of every 100 Ontario farms are electrified. Ontario Hydro's rural customers have more than doubled during the last eight years, and are now served through 39,000 miles of rural lines. It is worth noting, also, that whereas the Ontario farmer used 140 kilowatt hours monthly in 1938, at an average cost of 2.52 cents per kwh (kilowatt hour), he now uses an average of 287 kwh, at an average cost of 1.97 cents.

THE prairie provinces have been 25 years behind Ontario in developing rural electrification. It is well to remember that there are a number of reasons for this. In the first place, the sparse population of the prairies and the much greater mileage of power lines involved, to say nothing of the marked difference in the number of industrial centers, would of themselves keep the prairie provinces at least ten years behind their eastern neighbor. The Thirties, during which no expansion of any kind was possible, except in the amount of relief and the size of the public debt, account for another ten-year delay. Then followed the war, during which the materials shortage alone would have made an expansion program impossible. Moreover, Saskatchewan is much more severely handicapped than either Manitoba or Alberta. Not only is the average size of farms substantially larger and the total farming area very much greater, but water power, the source of low-cost electrical power, is almost non-existent except along the Saskatchewan River.

Manitoba is farthest along, and by the end of this year, 39,000 of Manitoba's 50,000 farms will be serviced from lines of the Manitoba Power Commission, and 90 per cent of all farms will have power available to them, although some have not contracted to use it. This is very substantial progress, considering that the first 1,000 farms were connected in 1945.

What was first recommended by the Manitoba Electrification Enquiry (*Please turn to page* 86)

What a difference both inside and outside the house! Whether it is washing, or cleaning seed, cooking or grinding feed, making toast, or pumping water, doing it by electricity saves time.

Sunset on the Red Deer River.

DINOSAUR RIVER

Above: Replica of a duck-billed dinosaur. Below: Spruce and pine grace the Red Deer far above its distant Lake Winnipeg destination.

Only the bones remain of the huge lizards which lived many years ago, where the Red Deer River now runs

by KERRY WOOD

IF you've ever been to a museum where dinosaur bones were on display, the chances are good that many of the reptilean remains came from the banks of the river that flows past my home. The museum tag may read: "Dinosaur skeletons from the Red Deer River Badlands, Alberta, Canada." If the badland part of the name conjures up a grotesque wasteland, don't you believe it. This is a beautiful stream.

It was first seen by a white man in 1754, when Anthony Handay journeyed into the territory to coax the Indians to travel 1,000 miles eastward to the shores of Hudson Bay where the fur company's fort was located. The Red Deer River then marked the northern boundary of the fierce and belligerent Blackfeet Indians, while Plains and Wood Crees lived north of the watery barrier. Near its source in the Rockies the Stoney Indians had their lodges and were called "Mountain Men."

"I held a drinking cup under the slow drip of a spring near Lake Louise," Banff Warden Bill Black once told me. "The Red Deer starts there drop by drop, only a hop and a skip across the mountain from the beautiful lake."

Perhaps that's why beauty is always present as the stream winds its blue water course across Alberta. At first it mirrors the scenic Rockies, skirting past a highland prairie bearing the musical Indian name of Ya-ha Tinda, meaning Sweet Grass. Then the stream cuts through lovely parklands with pine and spruce, birch and poplars framing its banks. Eight miles from the small city which has taken its "Red Deer" name from the river, the massive hills of the Canyon rise 500 feet above the pulsing waters. Next the river enters the coal-belt, where black out-croppings of the precious mineral are frequently sighted and the high towers of oil-drilling rigs dot the uplands back from the clay and sandstone banks.

"MOST of the dinosaur specimens on display in museums of the United States and Canada were excavated from the Red Deer Badlands," Charles Sternberg, Canada's best known paleontologist, once stated during a lecture.

The first small badlands are encountered near the booming oil town of Big Valley, but the fantastic erosions become more spectacular the farther you travel downstream. Past the coal-town of Drumheller the banks and (*Please turn to page* 50)

Below: Prospectors pan on the banks for gold, while, above, five whistling swans veer above the willows as they start a long glide to the river.

Producing Beef In Australia

Drought has dealt a heavy blow to the Australian beef industry. Here cattle come to water across the dry range.

Staggering waste and surprising inefficiency characterize methods used in Australia's vast northern and central regions

AUSTRALIA'S great cattle industry, with its vast potential and its remarkable history of "ups and downs," is now suffering one of the worst set-backs on record. A two-year drought, only broken a few months ago, has killed off hundreds of thousands—possibly millions—of animals. And since a large proportion of these are calves and breeders, it will take years for the trade to recover. Even the relieving rains have brought death to thousands of beasts. Weakened by thirst and hunger, they were unable to struggle out of the bogs that resulted, and so perished miserably.

For a country like Australia, that depends largely on primary exports, this is no less than a national disaster. It could mean, in time, insufficient beef to meet domestic needs. Already the resulting high prices have reduced the per capita consumption of beef in Australia; but that fall will be offset by an increasing population. Quantities left for export have dropped very sharply; special measures will be needed to restore them to former levels.

Contrary to general practice in Canada and the U.S.A., Australia's beef-men rely almost entirely on their pastures for fattening livestock. Stalling and hand-feeding have never been practiced, and very little supplementary feeding—none at all in most areas—is attempted. Where done at all, apart from topping-off, it is invariably in the *summer* months, this being the time of greatest deficiency in the natural pastures. Heat, not cold, is the great climatic enemy in Australia.

PASTURE supplements are usually silage or hay, made from either grass or lucerne (alfalfa). Topping-off with meals, molasses, grain, or other cultivated crops plays no part at all in the routine of Australian cattlemen. Scientists, lately, have been trying out such methods experimentally, and now advocate their use: If Australia is to recover with any speed from the present calamity, her cattlemen will need to adopt all possible methods of modern scientific husbandry.

Operations in the past have been far too "chancey," too haphazard. This goes especially for the vast northern and central region—about one-third the size of Canada—which has the biggest ranches. It is one of the few cattle areas of any size in the world, still capable of major development, yet conditions there are such that thousands of square miles of good potential beef country are practically running to waste.

After a four-year survey, the Commonwealth Bureau of Agricultural Economics reports that on some of the biggest cattle stations—and they run to over a million acres—both management and the quality of the cattle are "deplorably low." Methods of handling stock have made little progress in 50 years, while many station (ranch) workers live

Typical Australian stockmen look across country through which cattle are driven hundreds of miles to market. A distant herd is visible in the valley below.

under conditions so primitive that efficient labor is becoming increasingly hard to get. The report tells of one station, with more than 2,000 square miles of good country, and carrying 13,000 head of cattle, where the homestead could be classed as unfit for human habitation. On outcamps the only accommodation for stockmen, who are mostly aborigines, consists of rough bough sheds.

On some estates there are no boundary fences and no corrals. Herds of up to 50,000 head run wild. Animals for branding are rounded up in the open and lassoed, rodeo fashion. Calves are not weaned, but are allowed to run with their mothers, suckling to an extraordinary age. On such properties little is done in the way of culling; consequently they become cluttered up with weedy scrub bulls, aged and barren cows, feeble and aged bullocks—bad doers and no-hopers of every kind. These cattle are a dead loss in themselves, since they are never brought to market: Moreover, they eat out good pastures and ruin them by incessant trampling around the waterholes.

Water, of course, is the big problem in that area. The greater portion lies within the tropics, and depends for its moisture on monsoonal rains. When these are late, or don't come at all, wells and creek-beds dry up, herbage withers off, and animals perish. Even when a decent pasture-growth persists it is often too far from remaining waterholes for the cattle to get it. Worse still, the stock routes close, so herds cannot be moved off to market, or to pasture elsewhere, because roads and railways in the interior are woefully inadequate—in many districts non-existent. Getting the cattle out means droving them overland for distances of up to 1,500 miles.

CANADIAN cattlemen will realize the loss in condition caused by walking beasts such distances over rough, arid country, from waterhole to waterhole, to reach a railhead. Animals lose up to one-third of their weight, as well as the opportunity to gain weight, during the months they spend travelling. The long droves are often followed by slow train journeys of several hundred miles, ending at last at the fattening paddocks, or the coastal abattoirs. Some never make it. They die on the way from exhaustion, or stampede into the "bush." Drovers have lost up to 500 that way, in a single night, out of mobs (droves) of twelve or thirteen hundred.

For these long trips, only the stronger beasts, sturdy bullocks for the most part, are mustered (rounded up). Fattening-off at an early age, as practiced in North America, is manifestly impossible. Beef animals from Northern Australia are often six years old, or more, before they become fat. Even then they are rangy beasts, yielding long-boned, deep-chested (*Please turn to page* 46)

These Chippewayans are tanning caribou hides: This woman is scraping off the hair.

A later step is the soaking and working of the hide in a dish of caribou brains and water . . .

Tanning procedures vary, but most have in common the need for careful rinsing in clear, warm water.

DRESSING FURS and SKINS

You can do it yourself if you carefully follow the directions given in this article

by FELIX SCHROEDER

IN magazines and newspapers, I have often read short articles on how to preserve and tan furs and skins. In many cases, the information given is antiquated. I feel sure that both formula and procedure have been taken from some old almanac, or given by someone who is not acquainted with the basic principles of dressing or tanning. Actually, both forms of preserving or converting skins, involves a complicated chemical process, where condition of the skin, the chemicals selected for tanning or preserving, the length of time required for the various steps in tanning, and many other matters have a deciding influence on the outcome of the finished product.

The people interested in preserving a skin or fur are mostly farmers and hunters, who do not have the proper tools or technical knowledge to proceed as one would with the proper facilities available. Therefore, any formula for dressing or tanning should be made as simple as possible, and still enable the amateur to produce a most satisfactory job. For this reason, each step in the process should be fully explained.

There is a very definite distinction between *dressing* and *tanning*. Dressing is only a form of preservation, and dressed leather is not as durable as when tanned, because the chemicals used in this process may be washed out again, if the skin should ever be immersed in water. On the other hand, in skins which are *tanned*, the chemicals are stored and imbedded in the fibres of the skin and cannot be easily washed out.

Dressing is used throughout the fur processing trade to make garments from muskrat, coon, fox, squirrel, mink, marten, rabbit and many other skins. Tanning is used on hides and certain other skins like calf, sheep, goat, cowhides, horsehides. Most of the hides mentioned are used for different kinds of leather. For example, large calfskins and light cowhides are used for saddle leather, shoe uppers, and so on, while heavy cow and horsehides are used for making such items as sole leather and belting. Goat, sheep and deer skins supply leather for gloves and garments. These are only a few of the manifold purposes skins and hides can be made to serve. To process these commercially, requires much experience and machinery and is therefore beyond the scope of the amateur.

HOWEVER, it is quite possible for the hunter and farmer to do his own dressing on deer, sheepskins, calfskins, rabbits, fox, mink, coon, goatskins, bear and beaver, or if he desires, his pet dog or cat. A point to keep in mind, however, is that all skins should be properly taken care of, as soon as they are flayed.

To those of you who wish to try your hand, always be sure that your skins are properly stretched and dried, or the flesh side freely sprinkled with salt and folded flesh to flesh. Both methods prevent fermentation and spoilage, and when stored in a cool, dry place, the skins will keep for a considerable time: but the salting of skins is advisable, even when fresh skins are to be kept for only a day or two, before dressing.

The first step in dressing is the soaking of the skins, regardless of whether they are dried, salted or fresh. The purpose of the soaking is to bring the skin back to the condition it was in when it was taken off the animal, and also to loosen the fibre. First of all, shake out as much salt as possible if your skin has been salted, then soak in clear, cool water overnight—preferably in rain water. Skins that have been dried require 24 hours' soaking.

When the soaking is completed, the flesh of the skin should be soft and flabby. Remove it from the water, hang it over a lath or wooden horse, or whatever you may have handy for this purpose, and leave to drain until excess dripping eases. The skin is now ready for a very important step, the fleshing, which is the second of four steps used in this processing.

The fleshing of the skins should be done very carefully and thoroughly, because you will get a far more pliable skin when it is done properly. By fleshing, I mean that all loose particles of skin, fat and flesh should be removed. The best method here, is to work from the centre of the skin—which is the spine, toward the flanks. A special fleshing knife is used in the fur dressing and tanning trade for this purpose, but in Figures 1, 2 and 3 (page 62), you will find ideas for making a substitute for the regular fleshing knife and bench.

THE fleshing bench consists of a small seat, or bench, on which is mounted an upright two-by-four to carry the fleshing knife, as shown in Figure 3. For the knife, you can use the blade of a meat cleaver, chopping knife or section cut from a circular or cross-cut saw. Figure 1 illustrates common items found around the home, from which a suitable fleshing knife can be made. The knife in Figures 2 and 3 is cut from an old circular saw. The edge of the knife which is fitted into the two-by-four should be straight, and the cutting edge should be slightly curved as shown in Figure 2b. The curved, or cutting edge should be ground, on one side only, to a fairly sharp edge (Figure 2b). After the grinding is done and before the knife is mounted, the cutting edge should be turned over with a steel, such as is used in the kitchen or dining room to sharpen the carving knife. The edge should be turned to an angle of about 90°, and about one-sixty-fourth inch turned from the ground side, over the flat side of the blade, as shown in Figure 2a.

As you sit on the fleshing bench, facing the upright two-by-four on which your knife is mounted, the turned-over cutting edge is on your left hand side. Work your skin according to the position of your knife, with every stroke from left to right. Put your left hand with (*Please turn to page* 62)

[Photos by Richard Harrington for H.B.C.

This Chippewayan softens the hide by working it back and forth over a piece of wire. Unlike most farmers, she then makes clothes out of it.

A Dean Retires To Work

The habits of a lifetime are not easily broken—
but the Dean didn't want to break them anyway

by **ROBERT FRANCIS**

AFTER exactly 30 years as head of the Faculty of Agriculture at the University of British Columbia, Dean F. M. Clement left to spend his retirement helping people to practice the things he had been teaching all that time.

He could have stayed on at the University of British Columbia but the Dean—he still gets the courtesy title—who has a systematic turn of mind and likes clean-cut dates and divisions in all his activities, left on the 30th anniversary of his appointment as dean.

Today, with his younger son, John, who is one of his own graduates, he runs Clement Consulting Services Ltd., with head offices in Vancouver, and field workers wherever he, or John—who comprise the staff—happen to be, mostly in the Fraser Valley.

His elder son, Paul, another of his own graduates, also justified father's hopes for him in the field of agriculture. He is now an officer of the Fruit and Vegetable Division, Marketing Service, Canada Department of Agriculture, Ottawa.

Dean Clement has contributed to the development of agricultural economics in B.C. perhaps more than any other man. He believes firmly that a man's contribution in his own field must not be limited by the years of his formal working life.

"We are the leaders and we dare not fail," he said in his address at his final convocation. "I go into the world at 65, to start to make a contribution after my retirement."

This simple statement summed up the dean's feelings about highly trained specialists who come to a full stop on the day of retirement and never again raise a hand, or offer to draw on their experience for advice to younger men.

Apart, however, from his belief about a man's duty to use the knowledge gained over many years, Dean Clement is not the type of person who could long be happily idle. Though he has moved from Vancouver to a pleasant cottage at White Rock, about 30 miles south of the city, it is a rare day that he is not out in his car visiting a farmer who has called on him to solve some problem. On the days when he stays home pondering such problems, or writing his reports, there is a stream of visitors to the house, some of them old friends, and some of them clients, with new farm problems to discuss.

Perhaps no one has better summed up F. M. Clement's character and his methods, even when a young man, than Peter McArthur, in his book Pastures Green, published in 1915. Describing Clement pruning a tree, McArthur said:

"It had been my privilege to stand beside a great artist, while he drew aside the curtain from his picture . . . Here was a worker who expressed himself by an ordinary piece of farm work. He had laid creative hands on a tree and it would take form, as a picture under the brush of an artist, or a song on the lips of a poet."

And again: "He gave expression to his own soul and was willing that the world should look and see. He had enjoyed the task, because he had a definite purpose and knew what he was doing. He got the effect he was after, just as an artist might, when working under the stimulus of an urgent inspiration.

"I felt he had revealed to me something of himself, just as did the artists and poets. Since getting this little flash of light, farm work has looked very good. Farming is a great art and the farmer works with life. He gets his effects by working in accord with nature. Surely this is greater than merely imitating nature or describing it. Farming should be the more profitable and scientific by making it artistic.

"He had suddenly elevated work to a form of self-expression worthy to rank with the great artists. Ever since, I have been able to see possibilities in work—mere work. It is something a man can engage in as a man—not a drudge."

THE 40 years of work which led to Dean Clement's present activity started in the Niagara Peninsula, Ontario, where he was born at Virgil, near Niagara. He was graduated from the Ontario Agricultural College. Later he was agricultural representative in Elgin County, taught at Macdonald College, Quebec, was director of the horticultural experimental station at Vineland, and moved west to the University of B.C. in 1916.

Here he was the first professor of horticulture. He held this post for three years, until Dr. L. S. Klinck was made president of the University, and Clement himself was appointed dean of agriculture. Some measure of University of British Columbia's growth in the subsequent three decades is seen in the number of students in Agriculture. When Dean Clement took over the deanship of the faculty, he had about seven students. This increased to over 500 by 1948, during the postwar rush.

Dean Clement's chief outward characteristic, according to people who worked under him in those years, was his intense personal interest in every student. The type of instructor to whom individual students were cyphers, and only the class a unit, was a foreigner to him.

"His biggest influence," said a colleague, "was in his humanitarian approach to students. He was interested in them personally, and this can be a big help to a student. He believed they were more important than the general curriculum.

"He knew them all, and he followed their careers, both before and after graduation, with intense interest. When his own two sons started university, and began to follow their father's profession, here was a personal reward, and also a new lesson for the Dean himself, in the study of a fresh generation of men and women."

But principally, he was interested in the agricultural production of the province, and in any development that would increase it, or make it more profitable. His work with, and concern for, his students was a part of this—part of the job of making agriculture a more attractive and profitable profession, by turning out better trained men and women to practice it.

THIS man, with the trained teacher's mind, combined with the far-ranging imagination of a leader of industry, was also at home at the opposite end of the scale from the professional agriculturist. He knew that the problems of the workman, the farm hand, the packinghouse worker, the hired hand of the milk producer, or the poultryman, were as important to the industry as the soil expert with his university degrees over the living-room mantel.

Dean F. M. Clement pauses for the photographer in rich pasture land that two years ago was bush.

At both ends of the scale then, his expert knowledge of farming itself and the good-humored, tough-minded ability to conciliate disputes and bring people together who had decided not to agree, were put to work in the interests of the agricultural industry in B.C.

The third phase of farming, marketing, again showed the man as a figure who could step outside his immediate specialty, teaching, to show his industry how to make the most of the products he had helped it produce and harvest.

He was a moving figure, for many years, behind the formation of B.C. Tree Fruits Ltd., the apple growers' co-operative marketing organization, and of the B.C. Fruit Growers' Association, of which he was for a time secretary.

His busy teaching life was constantly interrupted by such calls on his knowledge and his skill as are required by a labor-management conciliator. In 1928 he was chairman of a provincial royal commission to study and report on milk marketing; and later he tackled the lengthy and complex task of examining almost the entire diking, drainage and irrigation financial system of the province, and recommending how it could be improved.

The unhurried existence of the professor, lecturing year after placid year, in unchanging subjects, living with his colleagues in a world all their own, was not the way life worked out for the kindly, energetic man from Niagara. He would not have wanted it that way.

His was a subject in which changes were constant, and he must know more about them than his students, or the professional farmers who came for his advice. Discoveries in chemistry, mechanical inventions, developments in communications, and the extension of electricity to rural areas, all had their bearing on the subjects he taught and the way his students would ultimately apply their knowledge.

Between classes and during his holidays there were scores of developments with which to keep in touch. He must travel the province to see what farmers were actually (*Please turn to page* 42)

Then I heard Jo crying. "You've spoiled everything," she sobbed.

Illustrated by Gordon Collins

It Won't Happen Again

It had been Jo from the first day I got back. She had kept the shop going since her father's death. We agreed to go along together. For a time it was all right for both of us but I couldn't forget that she was Jo, grown-up

by LESLIE GORDON BARNARD

FOR a time it was Jo's heartbreak; and then it was mine. It was hers down there at the printery after I had played the fool; it was mine after she left and there was only the clock tick-tocking in the emptiness of the place. I locked up and that was when I took my walk up Main Street and out beyond the town line and then back to where the sign was lighted over Doc Warren's door.

"Come in, Dave," he greeted me. He was in slippers with his collar loosed.

"Not busy?" I said.

"Have been and going to be," Doc said. "I've a baby due in the small hours, so I was snatching a minute or two." He studied my face. "What's wrong?" he asked me.

"Jo's left me," I said.

He motioned me to sit down. I sat there thinking about Jo. I sat there telling myself that just because you've been in uniform and collected some shrapnel in you and been honorably discharged it doesn't add up to romance. Not with a kid like Jo.

But it had been Jo from the very first day I got back, the day the overnight train deposited me on the home platform. I was glad it was early morning with only old Bill Peters, the agent, to give me a brief "Hi, Dave, nice to see you back."

"Nice to be," I said, and I exchanged the worn boards of the platform for cinders and a familiar short-cut that led me up Main Street way. The air smelt good. Hometown air. Better than the acrid drift of smoke over a battlefield, or the clean salty breath of the ocean miles, or the exhaust fumes of the city where I cut the last of the red-tape. The town looked good, too, set against blue, misty hills. I passed the five-and-ten just opening for business, and the drugstore, and Redfern's Novelties, and paused before the stone-and-brick front of Randall's Printery.

THE door was slightly ajar. I could smell ink and paper. I could hear the presses running. Memories crowded. I'd been Randall's partner.

It was old Doc Warren who had cabled me that Harry Randall was dead; and then an airmail letter followed from Randall's daughter, Jo.

"I have been helping Dad while you were away," she wrote, "and if you'd like, I'll try and keep things going."

Jo! That gawky kid. But it was okay with me. I'd wired her to go to it.

I stood staring at the door, then it opened wider and I saw an overalled, inksmudged girl smiling at me.

"Why, it's—it's you!" she said.

"Yeah," I said, "just me."

My heart was doing double flips. How they grow up, I thought. A moment later Jo was half dragging me into the place, all eager and breathless to show me.

"Well, there it is," she said at last, "fairly intact."

"It looks a lot neater than when I was on the job," I said.

Jo laughed. She had a dark crop of hair, wonderful eyes, and a dimple showed on the left side of her mouth when she smiled. She took me round, showing me this and that, triumphantly yet modestly. Then she looked at me and her glance wavered.

"Well," she said, "I guess this is where I came in. You'll be taking over, of course. It's been—rather fun."

I said, "Why the past tense? Look, how about you staying on and we'll have fun together? After all you've a half interest, I suppose."

She shook her head doubtfully.

"I've looked into that. You have the option of buying it out at a reasonable price."

I nodded. I said I remembered.

"Let's go along with it as it stands, and see," I suggested.

"Do you mean that?" Her eyes were eager again.

"I mean just that," I said.

It was only after I was half a block up the street that I grinned, thinking how swiftly it had all happened. I had a feeling as if a good clean wind had blown me along, and the place where the shrapnel had done its mischief forgot to ache at all. I went on, feeling fine, turned up by the post office and there was old Doc Warren backing out from his surgery.

"Well, look what's here," Doc hailed me, his eyes beaming. He'd brought me into the world. He'd broken the news to me the time my people had the level-crossing accident; he'd found me a housekeeper in Mrs. Graham. You could count on Doc. We exchanged a word or two, and Doc called back, "You'll be going down to see Jo Randall at the printery?"

"I've already seen her," I told him.

"Already?"

"And got things all settled. We'll work along together."

Doc pulled off his glasses, put them on again, and gave me a long stare. "You work fast," he said. "But I'm glad, Dave. Jo loves it there. It's been a life-saver for her. It'd be quite a heartbreak for her to quit now."

HEARTBREAK? There's a word for you. That was the word the doctor used. An old-fashioned sort of word. It shouldn't belong to Jo. Not to anyone so young. Or, for that matter, to a guy like me who should be mature. I'll give you another word. Romance. But keep that in perspective, I told myself, as the days went by. Remember she's just a kid suddenly grown-up. Remember who you are. You've been around a while.

For a time it was all right—for us both. We were immersed in getting the feel of things together, getting the wheels that had rusted a bit for me turning. The overalled, inksmudged girl with the dark crop of hair was just a partner in business, and a business that we both liked, or so I tried to persuade myself. But, thrown together as we were, I couldn't forget she was a woman. I couldn't forget she was Jo, grown-up.

One day I remembered it too well.

Jo was showing me a layout that she was pleased about. I looked, but I looked past it to her. I forgot the job and remembered the woman. She glanced up and read it in my face, and the light in her face flickered out.

"Oh — now!" she said. "Business, brother — just business."

I guess I got pretty red and sheepish for suddenly she broke into a gale of laughter, and I laughed with her. And that was that.

But I did some hard thinking going home that night to the house that had been my parents'. During my absence Mrs. Graham, the housekeeper, had at my suggestion, let some of the rooms, and now I was content to have the big front upstairs room for mine. When I got there I took a long look at myself in the mirror.

"Fellow," I said, "don't do it again. Get sensible—but quick. The kid's only nineteen. To her, you're beginning to decay. Watch your step, fellow."

I WATCHED my step. I watched Jo, too, out with boys in her own age bracket. It was youth with youth—all kidding and casualness. It was a world to which I no longer had the key. One of these days I knew (*Please turn to page* 66)

REPLACING THE RANGE BANDS

Sheep schools in Alberta are helping new owners of farm flocks to achieve success with sheep

by **DON BARON**

WITHIN the past few years, entire flocks of sheep have been left unshorn to graze Alberta's ranges, thus signalling a change that was coming to the sheep industry. Roadside fences were rolled with wool where unshorn animals had crossed, to constantly remind flock owners of the job they had left undone. Jagged branches were bound with tufts of wool to mark the bushes used by sheep to escape the burning summer sun. As summer dragged on and the shaggy creatures continued to shed their winter coats, more than one disgruntled sheepman complained:

"I haven't time to shear sheep, and can't find anyone to do it for me."

Original owners of the country's once-large range bands were passing their ranches on to another generation. The new owners were impatient with the problems of raising sheep and many were caught up in the rapid turn to beef cattle. These, they said, meant less costly fences to build, fewer pest-control problems, and freedom from the wearying work at lambing and shearing time.

While range bands were becoming fewer, smaller flocks in areas of newly broken land were springing up, however. Sheep could make good use of the grass being grown on the virgin soil. Enthusiasm was running faster and flocks were increasing rapidly, but many of the new flock owners knew little about the care of sheep.

THIS was the situation which Bob Shopland, secretary of the Alberta Sheep Breeders' Association saw develop and which officials of the Alberta Department of Agriculture were watching too. Last fall, when Bob walked into the Provincial Government offices and argued: "We can't have flocks going the whole summer without being shorn: something will have to be done," plans were laid.

Sheep schools seemed to offer a way out. They could be developed like field days, and be held on the farm of some interested sheepman in each district wanting a school.

"To prevent them degenerating into schools where the blind lead the blind," said Alex Charnetski, Alberta livestock supervisor, "we hired a sheep expert."

Seventy-one-year-old Harry Sams, Coolidge, Alberta, had worked with sheep most of his life. He had shorn sheep in Wyoming, Oregon and southern Alberta, and could have shorn a hundred bands this spring and made more money than by working for the government. Instead, he came to the school to show Alberta's newer shepherds how to shear. After shearing more sheep in his life than most of those at the schools had ever seen, he knew he could prove that it was not a difficult task, even for the beginner.

Six schools were planned, as breeders at Freedom, Abee, Sangudo, Darwell, Ma-Me-O-Beach, and at Clairmont in the Peace River country, volunteered their flocks and farms.

The school at Abee was typical of the group. This town is 60 miles north of Edmonton, where bushland is still being cleared for the plow. An ideal spot for the school was on the farm of quiet-spoken Fred Boulton, who cleared the trees from his own three quarter-sections himself and seeded 200 acres to grass and legumes. His flock of 60 Suffolk ewes and his herd of 25 Shorthorn cows make good use of the lush alfalfa, alsike, red clover, brome and timothy growing there now.

He has taken the lead in establishing Alberta's first 4-H sheep club, but was aware that trial and error had too often substituted for knowledge and experience in the shearing, treatment and care of local flocks. Why not, it was thought, have a sheep school as part of the 4-H club meeting?

This was agreed. Posters went out to the offices of district agriculturists, and members of the Alberta Sheep Breeders' Association were reminded. Over 75 adults arrived at the farm on June 1. They came not only from neighboring farms, but from farms 100 miles away. They came in the morning and stayed until late afternoon. Not only did they watch Harry Sams shear sheep, but they rolled up their sleeves and with a sheep and a set of shears, removed fleeces themselves under the instructor's patient but critical eye.

First they were shown how to grind a pair of hand shears.

"We need sharp cutting edges," said Harry; and he ground them to a fine edge. "Then grind the sharp points off the end, rounding them gently so the sheep will not be gouged and pricked. Now then, with the right hold on the sheep, shearing is nearly as simple as with a power machine."

Two or three hesitant beginners worked at one time. Each finished his sheep and made way for another willing to try. Before the flock was shorn, 40 adults had tried their hands, and felt that they could go home and take the fleeces off their own flocks with equal skill. The ladies, no shrinking violets, were into the thick of it, shearing sheep themselves. The 4-H club members did their stint. Each threw the tag ends and the clippings aside on a separate pile. They wrapped the fleeces, and left them ready for shipment in the way they would have to do at home.

SINCE good wool doesn't come from neglected flocks, a fully-rounded sheep program was scheduled. Bob Shopland exhibited a piece of wool blanketing streaked with black fibres which prevented it from taking a dye.

"That's why tags and belly wool and face and leg clippings should be wrapped separately from the fleece," he urged. "It can't be separated, once it is mixed and it will lower the whole grade of the fleece. Wool buyers, who demand quality fleeces, will tend to go right past our Canadian wool clip, all the way to Australia."

Alex Charnetski was there; Charles Stevens, University of Alberta shepherd, was on hand; as was S. G. Freeborn, sheep specialist of the Canada Department of Agriculture. These experts went further into the details of making money with sheep.

Fred Boulton's ram stood up well under a careful analysis for breeding character, as the experts pointed out the things to look for in all breeding stock. A strong, well-fleshed top, with depth at the chest, and strength of head, brightness of eye and cleanness of fleece—all are wanted.

The sheep were crowded into an alley and sprayed for ticks with a simple knapsack sprayer. There is no need now for a costly dipping tank, or a high pressure sprayer, the experts pointed out. With small flocks, costs must be kept low. The sheep were drenched for worms with phenothiazine. Capsules, it was noted, would have done just as well.

An ungrateful ewe had her feet trimmed in front of the watching crowd. Some lambs were docked

Harry Sams, right, shows a beginner how and where to cut in shearing his ewe at the school on W. B. Godfrey's farm near Clairmont.

and castrated with the knife, others with the burdizzo, and still others with an elastrator. The reason for a two-dollar deduction on all buck lambs was explained. Said Charnetski:

"The actual cost is greater than two dollars. If the carcasses are sold as lamb, cooked and a resulting odor fills the house, the distressed housewife is likely to growl to her husband, 'John, I'll never buy lamb again'."

Pregnancy disease, blue-bag disease, and pneumonia were all discussed as hazards to be avoided, or at least anticipated. The sheepmen pondered the many (*Please turn to page* 51)

Sheep enthusiasts braved muddy roads to reach the farm of Keely and Fen Wilson at Sangudo. Most of them tried their hand at shearing this band of ewes, and were surprised at their success.

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Mr. G. M. Hewson, Longbank, Saskatchewan
"Because I have a Fordson Major Diesel full track that has proved very satisfactory, and because buying British goods supplies dollars to buy our wheat, I bought a new Fordson Major Diesel wheel tractor and cultivator last fall. This Major and cultivator combination is a great boon. I was on the land much earlier than I could have been with the usual power lift. If I had not had this Major-cultivator combination to help dry the ground out in the wet Spring, my seeding would have been much later. My Fordson Major Diesel is very sparing on fuel and certainly surpasses my other wheel tractor, which is a 3-4 plow one, in power".

Mr. Harold Knowles, Barrie, Ontario. "For the past 22 years I have been farming in Simcoe County as well as doing hundreds of acres of custom work each year. During that time I have had several types and makes of tractors. Naturally, I am interested in economy and dependability the year 'round, so last year I bought a Fordson Major Diesel. In my opinion there is no finer tractor to suit the needs of every farmer in modern day farming. For example, in 50 acres of full-depth cultivating, this tractor used only 14 gals. of fuel, which cost less than $3.00. Its instant starting even on the coldest days in winter, its manoeuvrability and unlimited power are only a few of the many advantages in owning a Fordson Major Diesel."

Mr. Perley Goodine, Plaster Rock, New Brunswick
"I have been logging and working around mills practically all my life, and I find my new Fordson Major Diesel the most useful tractor yet. I use it hauling logs and it runs my small mill. It is exceptionally cheap to operate—6 gallons per 8-hour day. Other points which I think are exceptional are: (1) Its ruggedness. (2) Its power. (In tests in this area it has outhauled all other makes of comparative size and some even larger.) (3) The steering requires little effort. (4) The low price also is a big point to me. I am more than pleased with my Major Diesel and would recommend it to any farmer, lumberman or industrial user."

Mr. Art. Knutt, Emerson, Manitoba
"I bought my Fordson Major Diesel Tractor in April this year. We seeded 1100 acres of crop with a 28-run drill and averaged better than ½ gal. of fuel per working hour. On summer fallow it had ample power for our 14-foot cultivator at 1⅛ gal. of fuel per hour. The Major is a wonder for spraying, because of the excellent ground speeds of the 6-speed transmission. It turns in its own length and steers easily. We have approximately 751 hours on our Major to date, all trouble free hours, no mechanical or structural failures. I can honestly recommend the Major Diesel to my neighbours."

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Under the Peace Tower

by HUGH BOYD

EVERY general election produces its crop of solemn post-mortems, but there's been an almost dirge-like quality about discussions following the events of August 10. This describes fairly accurately the talk in the nooks and crannies of politically-minded Ottawa; and apparently in many other parts of the country as well. The theme, having something of the quality of the Wagnerian music drama "The Twilight of the Gods," is the state of the Conservative party.

It is a strange situation. Even while the federal party hangs groggily on the ropes, the provincial Conservatives in Ontario never looked stronger. Premier Frost came to town on business a few days after the great eruption, as affable as ever, full of plans for pushing the power part of the St. Lawrence development project, and for a gas pipeline from Alberta. Federal politics seemed to interest him much less than these things—which are exciting enough in themselves for most men—or Ontario's financial relations with its municipalities.

I mention Leslie Frost, the unassuming but astute lawyer from Lindsay, not with any idea of promoting him to the federal sphere, but rather to point up the fact that in the most populous province of Canada, the Conservative party is very far from an obituary notice. How Mr. Frost would do federally, while we're on the subject, is currently one of the local coffee-shop topics. His personality would undoubtedly carry a strong appeal to many people outside his own province, but would that be enough? Or, for that matter, would John Diefenbaker's reputation be enough?

The general feeling here seems to be that it would not have made a conspicuous difference in this summer's election, had the personalities been changed, for the reason that the Conservative platform turned out to be a dud, just as in 1949. Future framers of party platforms may find interesting research material in the campaign of 1953, when promises—even when spelt out in dollars—attracted fewer votes than a dearth of promises.

One veteran campaigner from the West, who has been on the winning side much more often than not, holds the opinion that the Conservatives would have fared better had they chosen a broadly right-wing approach all along the line, instead of trying to squeeze between the Liberals and the C.C.F.

NATURALLY a good deal of speculation has arisen as to what might happen should the Conservative party, in the federal field, show signs of lapsing into the ineffectual position now occupied by the Liberals in Britain. The speculation may be premature, because, as yet, no other party has shown enough strength to look like an alternative to the present government.

Since both the C.C.F. and Social Credit have gained ground in the West, with little in common except relative newness, both are to be considered as contenders in the event of a Conservative decline. Politics being the topsy-turvy business that it is, anything might happen, but it must be evident that a party on the make must concentrate on the rural, rather than the urban, sections of eastern Canada. There are many more rural than urban seats.

APART from a purely theoretical projection of future party trends in this country, much of the post-election discussion has to do with the electoral system. As usual, too many citizens couldn't be bothered to cross the street to vote. But a great many others, who cared very much indeed, found themselves hundreds and even thousands of miles away from home on polling day. A holiday month (for the city folk) only brought into sharper focus a trend of the times. Modern transportation has made for a more mobile population. Only a few categories of wanderers are recognized by the federal election law, namely, commercial travellers, rail, sea, air and road transport workers, fishermen, members of the reserve forces on training, and the R.C.M.P. All others are barred from the advance poll provisions. Even the privileged ones lose their vote, if they are not at home on one of three days immediately before a general election.

Parliamentary committees in the past have studied this matter of the eligible voter who can't go to the polls through no fault of his own. There are many practical reasons for their stand against a more generous distribution of ballot papers (whether through advance polls or absentee voting), but the most weighty one is that the opportunities for fraud would likely be increased.

In the United States, where individual states seem to be tending increasingly toward some form of an absentee voting system, the same danger is recognized. However those states that now allow a citizen to vote away from home (even in federal elections the law is made by the states), argue that the advantages of a maximum opportunity to vote outweigh the risks of skulduggery.

The next Commons committee on elections can hardly escape coming to grips with the problem. V

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B.C. Letter

B.C.'s farm policy not yet clear. Meanwhile there are numerous problems to be considered in the aftermath of two elections

by **CHAS. L. SHAW**

A TURN of the political wheel makes and breaks friendships with surprising suddenness, especially in the international realm. Seldom has there been such a complete change in attitude, as may now be witnessed in British Columbia toward the Japanese.

It doesn't require a long memory to recall the status of Japanese in Canada's west coast province a little more than five years ago. They were all east of the Cascade mountains, having been arbitrarily evacuated there after Pearl Harbor, when the presence of a Japanese in the coastal area was regarded as dangerous to national security. They were, indeed, displaced persons, and not particularly happy about it, although a few of the more resourceful and adaptable Japanese re-established themselves in Alberta's sugar beet fields and elsewhere.

But nowadays, British Columbia seemingly can't do enough to assure the Japanese that bygones should definitely be bygones; that the war is a long time over and nothing is more logical than friendship between Canada and Japan. Vancouver was visited a few days ago by a party of distinguished civic dignitaries from Japan, and the red carpet was rolled out for them. Japanese ships are resuming their calls at British Columbia ports and industrialists are talking again about Japan being one of B.C.'s most promising markets for lumber, pulp, grain and other Canadian products. Japanese are back in the fishing industry again, and have so far encountered no sign that they aren't welcome.

This is probably all to the good, and it helps British Columbia to live down an episode in her history of which she isn't particularly proud. Most people, looking back on the war years without prejudice, realize that the government authorities acted pretty hastily, and probably not too intelligently, when they moved all the Japanese into the interior and then kept them there many months after the corresponding authorities in the United States had permitted their own Japanese to resume former activities on the coast.

THIS is harvest time through most of British Columbia and, as far as production is concerned, growers have had little cause for complaint. In the Okanagan Valley, the cherry crop will be slightly larger than last year and of better quality. Apricots, however, have been below the estimates. There has been some anxiety over the plum market. The growers have been comforted to some extent by a contract which places peaches, pears and plums under price support this year, the guarantee being based on the prices prevailing during the past three years. But the contract is regarded more as insurance against ruin than as a guarantee of prosperity.

Measures to improve the economic status of the farmer may be introduced at the September session of the provincial legislature, although Premier W. A. C. Bennett may decide to put such matters off until spring. The government's legislative program is still somewhat uncertain, even though the Social Credit party won unquestioned control of the House at the June election.

Still riding high in British Columbia in the provincial sense, the Socreds came a cropper federally, and all their high hopes of placing the west coast in the Social Credit column, along with Alberta, came to naught when the voters returned eight Liberals and seven C.C.F. candidates, three Progressive-Conservatives and only four Socreds. During the campaign, Premier Bennett had been telling his audiences that Social Credit would certainly dominate B.C., and that it should be made "master of Canada." "This is the new force, the people's movement, and no party can stop it," declared Mr. Bennett.

Well, the Liberals stopped it in British Columbia in the federal election, and so did the C.C.F., which will be represented federally by Harold Winch for the first time. Mr. Winch, it may be recalled, retired from provincial leadership of the C.C.F. a few months ago, after 20 years in the legislature.

Analysis of the voting demonstrated that British Columbia, by and large, was pretty well satisfied with the men who had been representing her in the House of Commons. The outstanding figures in all political groups in B.C. were re-elected. Social Credit's gains were chiefly in the agricultural ridings, indicating perhaps a feeling of unrest among the farm groups because of Ottawa's failure to improve their economic position.

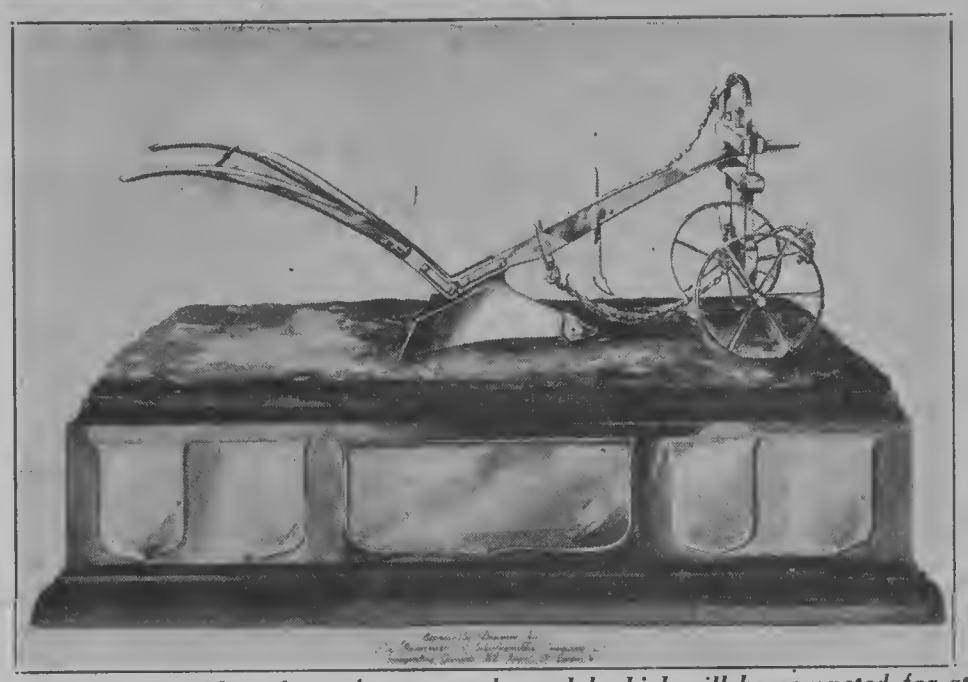
BRITISH COLUMBIANS are hoping that the Federal Power Commission in Washington, D.C., approves the application of Westcoast Transmission Co. to pipe natural gas from the Peace River country into Vancouver and nearby cities and across the border into Washington and Oregon.

Logic and economics appear to be on the side of Westcoast, which is a Canadian company, but the sponsors of the competing line, Pacific Northwest Pipeline Corporation, are appealing to local emotions and applying political pressure to support their scheme involving the transportation of gas from the San Juan basin in New Mexico.

The line from the Peace River to the potential market would be much shorter than the line from New Mexico; it would have a peak elevation only half that of the other line, and it would have access to a much greater producing field. Furthermore, gas from Peace River would not be subject to such intensive competition as the New Mexico line would certainly have during the coming years from the greedy and rapidly expanding California consuming centers.

Meanwhile work on the oil pipeline of Trans-Mountain Pipeline Co. which will deliver Alberta oil to the coast is being rushed to completion, and the final links will be connected during the next two or three months. V

NEWS OF AGRICULTURE



Picture of the golden plow, of a very early model which will be competed for at Cobourg, Ontario, where the first World Plowing Match will be held in October.

World Plowing Competition

CANADA'S International Plowing Match will be held near Cobourg, Ontario, October 6-9. The Ontario Championship Class will plow on October 6, and the winner and runner-up in this class can take part in the Canadian Championship Class to be held on October 7. Similarly, first and second prize winners in this class may compete in the World Championship Class to be held on October 8 and 9.

Plowmen from 12 countries are expected to compete in the World Championship Plowing Match, conducted by the World Championship Plowing Organization, of which J. A. Carroll, assistant deputy minister of agriculture in Ontario, is president. The winner will be the first tractor plowing champion of the world, and will receive a golden model of a plow. This trophy has been made in London, England, at a cost of about $1,500 by the world-famous British craftsmen who reconditioned the crown jewels for the Coronation. The trophy is being donated jointly by the Imperial Oil Company in Canada and by other companies overseas.

Manitoba will be represented in the Canadian championship class by two plowmen, Sewell Heynes of Emerson, who has participated in five provincial matches and has been successful 10 out of 13 times locally. The other Manitoba representative is John Beam, Portage la Prairie, who has been plowing since 1917 and scored below second only once in eight matches. It is believed that two winners in the Canadian class may possibly represent Canada in the world match to be held in 1954.

A one-day course for plowing judges was recently held in Ontario, attended by 40 judges whose work was checked with a board of consultants, each of whom was a champion plowman of previous years and an experienced judge. V

Foot-and-Mouth Deadlock Broken

SINCE the outbreak of foot-and-mouth disease in the state of Vera Cruz, Mexico, a deadlock over control methods has been developing between Mexico and the United States. The long outbreak, which began in 1946 and kept Mexican cattle out of the United States for six years, cost the United States government many millions of dollars to keep the dreaded disease out.

Recently, the deadlock has been broken by some compromise, but U.S. insistence on the slaughter of exposed livestock is maintained. Eradication by slaughter was strongly opposed by Mexico, but under the compromise such animals can be made into fish food, fertilizer, tankage and other commercial products, after treatment to make the meat harmless. Previously, all such animals were destroyed.

Under the proposal, also, once all susceptible animals have been "evacuated" (term now used in Mexico for disposal or slaughter) the infected zone will be completely disinfected and pastures burned. Test animals will then be placed in the zone to check on the success of control measures, before commercial livestock is allowed in again. In addition, all susceptible animals within a radius of six to nine miles of the focus of infection will be vaccinated, and all animals within a 15-mile radius will be held in strict quarantine until control has been made certain. V

Rayner Memorial Scholarship

THE Saskatchewan Agricultural Societies Association, jointly with the Saskatchewan Field Husbandry Association and Saskatchewan Branch, Canadian Seedgrowers' Association, is organizing a memorial to the late Professor John G. Rayner, who for so long was director of extension services at the University of Saskatchewan.

The memorial will take the form of an annual $200 scholarship to an outstanding 4-H club member, tenable in any course at the University of Saskatchewan, of five months' duration or more.

The Associations hope to raise the sum of $4,000 and will welcome contributions from any source. No letters of solicitation, however, will be written. Any cheques made payable to "Rayner Memorial Fund" and sent to the Director, Extension Services, University of Saskatchewan, Saskatoon, will be appreciated. V

Dick Painter Promoted

EFFECTIVE October 1, R. H. (Dick) Painter, who was in charge of warble-fly control in the West from 1932 to 1948, and since 1947 has been officer-in-charge of the Livestock Insect Laboratory at Lethbridge, will become Livestock Insect Liaison Officer for western Canada on behalf of the Canada Department of Agriculture. From this date Mr. Painter will work closely with provincial departments of agriculture in planning and carrying out programs for the control of livestock insects.

Many western farmers will agree with the departmental announcement that Mr. Painter is "well known to the livestock industry and has unrivalled knowledge and experience of the in-

R. H. (Dick) Painter will be Livestock Insect Liaison Officer for western Canada, after October 1.

sect problems affecting the industry in western Canada, and of methods of dealing with them."

The federal department plans to set up two animal insect research centers, one at Lethbridge and the other, in Ontario, to serve eastern Canada. The Animal Insect Laboratory at Lethbridge, established largely at the instigation of Mr. Painter, will become a part of the Lethbridge Regional Research Center, operated by the science service of the federal department. Under this reorganization the officer-in-charge of the Livestock Insect Laboratory will be W. O. Haufe. Mr. Haufe is being transferred from Kamloops, B.C., and in the opinion of the department brings to his new responsibilities "demonstrated ability in the planning, direction and execution of research work on insect pests." Additional staff from Kamloops will be added to the laboratory at Lethbridge to take care of an enlarged research program there. V

New Jobs For Chemistry

FIVE important new jobs in agriculture were described recently for chemistry by the director of Battelle Institute, Columbus, Ohio.

First is the job of enabling plants to absorb substantially more of the

sun's energy, than the present four per cent.

Second is to regulate the loss of moisture from foliage and in this way cut down the damage from drought.

Third is to improve the nutritional quality of foods, in addition to a mere increase of bulk yield.

Fourth is to bring about the even maturity of varieties of soy beans, fruits and other crops such as sweet clover, at the same time, thereby facilitating mechanical harvesting.

Fifth is to develop new qualities in plants, such as stiffer stems, deeper roots and a higher percentage of usable parts.

Reason for these new tasks for science is that the United States population in particular is increasing at the rate of about two million persons per year, while usable acreage and the farm labor force are decreasing. V

Dairy Foods Promotion

MOST dairymen are familiar with the effort of the Dairy Farmers of Canada, through the June set-aside, to promote the use of dairy foods in Canada. Returns from the 1953 set-aside have been coming in with reasonable success, according to latest reports.

In the United States the American Dairy Association, through its executive committee, recently decided on an expanded sales program for dairy foods, over and above the current program costing $2 million per year.

The committee of the American Dairy Association consists of one dairy leader from each of 40 member states, and the reason for the expanded program was given by the president, Merrill N. Warnick, as follows:

"By expanding our self-help program, as we have been challenged to do by the government, we hope to keep dairy food consumption increasing. This will make the industry less and less dependent on the price support program and should take a big bite out of the government's store of dairy products."

The Association will also inaugurate a new marketing research program, while at the same time improving the public relations of the dairy industry by organizing a series of press conferences between the dairy industry leaders and the press. V

High Production In Australia

AUSTRALIA'S farm production for the 1952-53 year was estimated recently by the Minister of Commerce and Agriculture at $2.4 billion, or 17 per cent above that of the previous year.

Contributing to this high production was a wool clip of $1.2 billion or 20 per cent more than 1951-52, and 25 per cent above the five-year prewar average. The wool clip per head in 1953-54 is expected to be half a pound above the all-time record of 8.53 pounds in 1928-29.

Australia also produced 625,000 tons of beef and veal, and 340,000 tons of buck mutton and lamb, which is 40,000 tons more beef and 63,000 tons more of mutton and lamb than the previous year.

She secured $333 million more from agricultural exports in 1952-53 than in the previous year, to make a total of $1.5 billion. Important export farm products from Australia are butter, barley, sugar, beef, veal, canned meats, lamb and mutton, as well as cheese, eggs and dried fruits. Most important of all is wool, which brought close to $1 billion. V

Rainmaking Legislation

THE time may come when governments may control rainmaking. At present, however, not enough information is available, and the U.S. Congress has recently set up a committee called the Federal Weather Control Committee, to study the feasibility of weather modification. The law creating this committee was signed in mid-August by President Eisenhower.

Six of the eleven committee members will be from government departments, and five from private life. The committee will report to the President periodically, with a final report no later than 1956. It is to make a study of artificial weather control and the status of scientific experiments. For this purpose it may subpoena records and thus force disclosure of scientific data belonging to commercial rainmakers. Government agencies represented on the committee will include the Departments of Commerce, Defence, Agriculture, Interior, Health, Education and Welfare, and the National Science Foundation. The President will select the five private individuals on the committee from leaders in science, agriculture and business. V

Sleeping Sickness In Horses

IN July, cases of sleeping sickness (encephalomyelitis) broke out in Manitoba and North Dakota. It spread to southeast Saskatchewan early in August, and by mid-August cases have been reported from Maple Creek in the southwest to Humboldt in the northeast. Most of the cases, however, are in the southern part of the province. No serious epidemic has developed at the time of writing, but a vaccine was almost impossible to obtain in Saskatchewan for a time.

The Department of Veterinary Science, University of Saskatchewan, has been the only manufacturer of the vaccine in Canada since the decline of the prairie horse population. The Department was soon overwhelmed with orders from both Manitoba and Saskatchewan, and at one time, a Regina drugstore, distributors of the vaccine for southern Saskatchewan, had 500 unfilled orders on hand.

Shortage of fertilized eggs (as culture medium) was hampering production of the vaccine at the University. Danger lay in the fact that human beings are susceptible to the disease, and extreme care is needed in the handling of sick animals. Previous epidemics occurred in 1935, 1937, 1938 (the worst) and in 1941. V

Get It At a Glance

Facts about agriculture, in Canada and elsewhere, in easy-to-read form

Canada will harvest this year her seventh half-billion-bushel wheat crop, the others having been taken off in 1928, 1939, 1940, 1942, 1951, and 1952. The 1952 crop, estimated at 603.8 million bushels (for all Canada) as of August 14, by the Dominion Bureau of Statistics, would be approximately 43 per cent above the 1943-52 average of 423.5 million bushels. The Bureau estimates the spring wheat crop at 577.8 million bushels for an average of 23.3 bushels per acre. Estimated acreage is down from 25.3 million acres last year to 24.8 million this year, and estimated average yield per acre is down from 26.3 bushels last year. V

The cost of living in Buenos Aires, Argentina, has been high since the war. Taking 1943 as 100, the cost of living index in February was 615, but had dropped to 577 in May. Foodstuffs were 715 in February and dropped to 620 in May. V

The increase in the number of persons engaged in part-time farming on this continent is illustrated by a survey made by the Twentieth Century Fund in the U.S. In 1930, one out of every seven employed persons who lived on farms, had a non-farm job. In 1940, the proportion was one out of five, and in 1949, one out of three. V

The French government is planning to call a meeting to prepare for an international Foot-and-Mouth Disease convention. V

Summerfallow acreage this year, which is up 4 per cent in Alberta, 7 per cent in Manitoba, and 9 per cent in Saskatchewan from last year, totalled 22,764,000 acres, up 1.5 million acres over 1952. With normal moisture next year, following good summerfallowing this year, the extra fallow acres could mean 30 million extra bushels of wheat in 1954. V

Danish crop production is integrated with the production of livestock and livestock products. This is shown by the fact that crop production is estimated in millions of crop units, one unit equalling the feed value of 100 kilograms of barley. V

To subsidize wheat exporters for the difference between the maximum and the minimum prices under the International Wheat Agreement will cost the U.S. $108 million during the first year of the Agreement. V

Due to the congestion of elevators and the inability of farmers to deliver grain in any quantity, the Rt. Hon. C. D. Howe, Minister of Trade and Commerce, told the Alberta Federation of Agriculture in August that the government was considering the financial position of farmers and believed "the steps to be taken will meet the situation." V

To replace or supplement the dikes which were damaged or destroyed by the severe storm which struck Britain and northwestern Europe last January, will cost The Netherlands an estimated $395 million. A little more than one acre out of every 20 acres of farm land in The Netherlands was affected. V

Canadian farm prices in June (1935-39=100) declined to 248.9 from 276.2 in June, 1952. V

Manitoba honey producers favored a provincial honey marketing board by a vote of 326 to 88, or by 79 per cent, in a ballot conducted by the Manitoba Department of Agriculture, which was counted Monday, August 24. With this vote, the provincial marketing board, an advisory body, will decide whether the marketing scheme should be recommended to the government. The basic requirement for recommendation was a 70 per cent favorable vote by the beekeepers. V

Kansas has been allotted 11.8 million acres for the 1954 wheat crop, or about 18 per cent of the total: Iowa produces up to 20 per cent of the huge U.S. corn crop. V

For the 1953-54 season, New Zealand will supply the United Kingdom with 90 per cent of her exportable surplus of butter, and 92½ per cent of her exportable cheese. Britain will take the butter at £16 6s per cwt. (112 lbs.) for best quality, and £9 2s 6d per hundredweight for cheese. Prices for both products are up 12s per cwt. over 1952-53. V

Prices received by U.S. farmers as of June 15 this year reached an index figure of 259 (1910-14=100), while prices paid, including interest, taxes and wage rates, were shown at 275. V

Recent Farm Improvement Loan Act amendments at Ottawa will enable farmers to obtain a loan equal to three-quarters, instead of two-thirds, of the cost of farm electrification, or 90 per cent, instead of 80 per cent, of the cost of new farm buildings. The total amount a farmer may borrow has been raised from $3,000 to $4,000, repayable in ten, instead of seven years. He may also borrow $4,000 instead of $3,000, for the purchase of new farm equipment, repayable in three years. For used equipment he may borrow up to 60 per cent instead of two-thirds of the cost. V

The U.S. expects wheat stocks this year to be the largest on record, with corn the second largest, oats above average, and barley the smallest since 1948. V

Dr. Arthur Percy Saunders, 84, who played a part in the development of Marquis wheat, died at Clinton, N.Y., in August. He was a brother of Sir Charles Saunders and had been professor of chemistry at Hamilton College, Clinton, for 39 years. V

Creamery butter production in Canada for the January-July period was 12 per cent higher than in 1952. Cheddar cheese was up 11 per cent, and ice cream 4 per cent. On average, the production of all concentrated milk products was down 6 per cent in the same period, although concentrated milk by-products were up 10 per cent. V

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FERGUSON *Twenty*-85

LIVESTOCK

Four good Shorthorn heifers relax in the shade on Dick Mouser's farm near Claresholm, Alberta. The Suffolks enjoy some shade in left background.

Fresh Fall Pasture For Ewes

Rape seeded with wheat gives two crops from one field, and a bigger lamb crop

IN the southwest section of Alberta warm chinook winds drift over the Rockies, clearing away the blizzards of winter storms and bringing spring weather when much of Canada is covered with snow and ice. Stock often graze on pasture the year round and the purebred Shorthorn herd and the flock of Suffolks of Dick Mouser, at Claresholm, are no exceptions.

In spite of the mild climate, many of Mr. Mouser's methods of caring for stock could well be used in other districts. Whether he is sending animals out as breeding stock or growing them for market, he is a stickler for proper feeding. He has seen enough overfitted animals ruined as breeding stock that he abhors overfeeding. Still, the stock must be vigorous and healthy, and good nutrition is just as important to him as the right kind of breeding stock. He considers fall pasture for the flock one of his most profitable investments, and turns the ewes into a field of succulent, dwarf essex rape every fall, to be flushed out and put into shape for the breeding season.

Seeded at a pound per acre with his spring wheat to eliminate the cost of a separate field, the rape stays fairly dormant during the summer. After the wheat is combined, the rape sends up a fleshy leafy growth ready for fall and winter grazing. With 100 acres seeded this way, the ewe flock is turned on it right after harvest. Mr. Mouser proved to himself in 1950 just how important this flushing really is. That year when a late harvest and early snow prevented the ewes from getting their succulent fall feed, they went into the breeding season right off dry grass. The disappointing lamb crop the next spring numbered just six lambs more than one lamb for each ewe. The previous year, 24 ewes that had run on rape were bred during a 12-day period of the fall, and they dropped 48 lambs.

There is one thing, Mr. Mouser points out, that farmers should be aware of, if they plan to grow rape this way for their flock's fall and winter grazing. The slight growth of the rape up to harvest time is sufficient to keep the ground damp and prevent the grain from drying out sufficiently for the combine, if it is to be swathed, so Mr. Mouser combines the wheat as it stands in the field.

He weans his lambs, which are born in March, about the end of July, puts them into a 40-acre field of spring oats and sells them three weeks to a month later, weighing close to 100 pounds each.

He figures wool should pay for a sheep's feed, for he never creep feeds the ewes and still has trouble to keep them from getting too fat. It is from selling big, healthy lambs, some for breeding stock and some for market, that he makes his profit. V

Save Pigs with Farrowing Crates

SINCE it has been estimated that 25 per cent of all pigs born, die from crushing and chilling during their first ten days unless given some protection, it is no wonder western farmers have been using guard rails and pig brooders to keep losses down.

Most hog producers, however, have not yet tried farrowing crates, and results from their use at the Beaverlodge Experimental Station indicate they provide the surest and easiest method for farrowing sows and caring for the litters. Not only are there fewer losses from crushing, but less time is required to supervise the sows at farrowing.

Sows are placed in the crate two days before farrowing and left there until the litter is eight days old. Openings in the sides of the crate are adjusted to the size of the sow.

Only 2.4 per cent of the pigs from 22 litters farrowed in crates in 1951 at Beaverlodge were crushed, while 12.2 per cent of the pigs born in the 16 litters that were farrowed in pens equipped with guard rails and electric pig brooders, were lost in this manner.

Plans for the farrowing crate may be obtained from the Experimental Station, Beaverlodge, Alberta. V

LIVESTOCK

Higher Costs For Dairymen

THE Manitoba Dairy Branch reports that although the price of milk has increased, cost of production has also increased. Taking its figures from the dairy costs study, it notes that the severe drop in cattle prices has greatly affected the milk producer. The sale of surplus stock amounts to about 25 per cent of total revenue on dairy farms. Feed costs amount to about half the entire cost of producing milk, so good or poor crops have a big influence on the final cost. From farm to farm, it is reported, costs range from a low of $3 per hundred pounds of milk to a high of $7, and all figures vary from year to year, depending on disease, feed conditions and price, production per cow, and prices received for the milk or stock being sold.

The dairy branch makes several suggestions which farmers can use to increase their profits. Making full use of herd improvement and artificial breeding facilities where available, can help. Seeding good land to grass and hay, fertilizing these fields, and rotating the pastures, greatly increase forage yields. Cows, it is stressed, must be fed all the good roughage they can consume, and grain according to their ability to produce, always bearing in mind the grain-milk price ratio. Then, by making use of every labor-saving device to be found, and increasing the size of small herds, if possible, more milk will be produced at a lower cost. V

Weapons For Coyote Control

STOCKMEN battling coyotes in Alberta are finding that coyote-getters and other forms of poison can kill a lot of the pests. The coyote-getters, which are actually cyanide guns, to be set out with a bait, discharge into the coyote's mouth when it attempts to get bait. The guns are available under the provincial coyote control policy, to any farming area in Alberta, if local council or improvement district authorities request them. Using these, some districts report over 100 coyotes killed in a month.

The poison 1080 is also available under the policy, but it is restricted to sparsely populated areas. It is used to treat fresh carcasses (usually horses) and the baits are then set out in certain safe selected places. Since it is tasteless and odorless, coyotes are not aware that the meat has been tampered with. Because of the deadly nature of the poison, carcass remains are picked up in the spring and burned or deeply buried.

The province notes that pest offices have a supply of materials, and farmers are urged to use them for protection. V

Feed Young Pigs Early

MOST pig troubles begin when the litter is about three weeks old and the sow can no longer produce enough milk to satisfy the fast-growing youngsters. Then, if they are not being creep fed, the young pigs will begin to eat oat hulls and other coarse feeds that will irritate their tender intestines with disastrous results.

A board or two nailed across the corner of the pen to keep the sow away, will provide a spot to begin creep feeding, says Alex Charnetski, livestock supervisor, Alberta Department of Agriculture. The pigs will start on a dish of fresh cow's milk and soon will be able to take a few handfuls of rolled oats from another dish. A gradual change to boiled whole wheat or barley, and then to commercial pig starter or other feed, will keep them growing.

Mr. Charnetski emphasizes that if healthy pigs are to be raised, the amount of oats in the feed mixture should be less than 25 per cent while the animal is less than 12 weeks of age. The stomachs of little pigs cannot stand much roughage. A teaspoonful of cod liver oil given to the youngsters every day will also help to keep them healthy. Above all, the pigs should have plenty of water and green alfalfa. Since it is only the leaves that have food value to pigs, it should be fed onoe a day, just as it comes from the stack, letting the pigs do their own selecting. V

More Food From Every Acre

SPEAKING at the annual meeting of the Canadian Society of Animal Production, J. M. Appleton stated that if world populations continue to increase at their present rate, and if the standard of living is to be maintained or increased, great changes will have to be made in agricultural production efficiency. One of these changes involves a reduction in the use of grain and an increase in the amount of grasses and clovers as feed for ruminants.

This would accomplish two things, he noted. First it would make use of plants that we as humans cannot eat ourselves. Then, it would enable us to produce more food from our soil.

If we fail to provide cheaper and better food, we can lay the foundations upon which not only the freedom of farmers, but of all the people of North America can be destroyed, he concluded. V

Loose Housing For Cows

MORE accurate information will soon be available to help cattlemen answer the question: "What buildings and equipment should I have, to keep costs low and profits high enough to make farming worthwhile?"

Twenty farms within a 50-mile radius of Hillsboro, Illinois, are being studied under a project financed by the United States Department of Agriculture, and carried out by the Doane Agricultural Service. Big farms and little farms, prosperous farms and others not so prosperous, were included, as long as each was looking for some way of bringing his dairy operations up to date. Co-operating farmers agreed to keep time records on their chores, and cost records on their building and remodelling. They all converted their stanchion stabling

to the loose-housing type, and built milking parlors.

Results so far show that loose-housing provides an effective method of stabling cows to keep the animals comfortable, minimize chore time and to produce high quality milk. The loose housing system makes it possible to use pole barns on dairy farms—the cheapest type of permanent building recommended by engineers. It has been shown that hay and straw can be stored right on the ground, possibly in part of the pole barn. Extra handling will be far less than in regular loft-type barns. Self-feeding equipment can be used to cut winter work at feeding time to a minimum.

Observations of most of these 20 farmers were that they liked their new set-ups, but were glad they didn't go into them without giving the matter some serious thought. They knew of neighbors who had started into pen barns on their own without sound advice, and wound up in trouble. Some of them finally quit their loose-housing systems altogether, and went back to stanchion barns. V

Lean Pork From Antibiotics

ANTIBIOTICS and vitamin B12 will make hogs gain weight faster, and the extra weight will be put on in the form of lean meat, as well as fat, according to experiments at the University of Wisconsin. It has been suspected by many that the extra weight put on by hogs eating antibiotics was largely fat, and if this was true, there would be no advantage in producing fat carcasses, only to be docked for them when they were marketed.

Ninety-six feeder hogs were used at the University, and when they were slaughtered, here is what the researchers found.

With a high protein ration, aureomycin or B12 supplements didn't increase the proportion of lean cuts, dressing percentage, fat back thickness, or carcass length. On a medium protein ration, all of the supplement treatments produced leaner hogs. In fact, hogs getting B12 plus aureomycin were just as lean as hogs fed a higher protein ration. On a low protein ration, the hogs getting supplements had a higher percentage of lean cuts than those that got none. V

Advanced Registry And the Show-Ring

IN 25 years of testing work, Danish swine breeders have reduced the feed consumption of their pigs from 3.6 pounds to 3.1 pounds for every pound of weight gained. That is an example, said J. G. Stothart of the Lacombe Experimental Station, of what can be accomplished by testing pigs through such a program as the Canadian Advanced Registry policy.

Speaking at the annual Feeders' Day at the University of Manitoba, he said progress has not been as great in Canada. There have been several reasons, and one of them, he pointed out, has been the show-ring. In Denmark, a swine breeder is not recognized as a breeder until he has proved his ability to breed swine which will meet the standards of testing stations. These standards are for prolificacy, rate of growth, feed consumption, and carcass quality, the same standards as under A.R. In Denmark only qualified breeders can bring stock forward in the show-ring, and all must either be qualified, or from qualified stock.

What a contrast to common practice in Canada, he pointed out, where only a few of the animals shown are either tested, or from tested stock. V

Many Cattle In the West

ONE-THIRD of Canada's cattle population graze the fields of Saskatchewan and Alberta to give the lie to the belief that the only major farm crop in the west is wheat. A survey covering 17 of the 33 census divisions in June, 1951, has now been made and these 17 divisions carry about half the livestock in the total area covered.

Over 75 per cent of the occupied farms reported cattle enterprises, and over one-half of these cattle were kept for beef. The number of cows and heifers kept for this purpose was 510,245, while 346,969 were reported to be kept for milk. As would be expected, the greatest amount of pasture consists of natural unbroken prairie land, and the figures show cattle grazing on 25 million acres of this. Nearly two million acres of community pasture are also being used, as well as 1.4 million acres of improved pasture on individual farms. Another million acres of the area studied were used for cultivated hay and fodder, while 5.6 million acres grow coarse grains for feeding the stock.

Although cattle production started on the open range in the 1870's, farm production has since become important. The survey concludes that for the past 30 years, cattle numbers in the area have remained fairly constant. V

Range Disease

"CANCER EYE" of cattle, or epithelioma, is a malignant type of tumor, which may be found in the eyes and related tissues during the summer. The growth may start in the membrane at the angle of the eye, in the mucous lining of the lids, or in the front part of the eyeball. It may first show up as a small, reddish mass, sensitive and easily injured, and ready to bleed freely. It will eventually destroy the whole eye and then spread to other tissue.

It is important to diagnose it early. If caught soon enough, an operation by a veterinarian may be successful, but if it becomes well-established, and the animal is still in fair condition, the only procedure left may be to send it to market for slaughter, subject to inspection.

Causes of cancer eye are not known for certain, but contributing causes are thought to include irritation of the eyes, by such things as dust, sand, insects, or possibly the direct rays of the sun. Cattle on the range seem to be particularly susceptible. V

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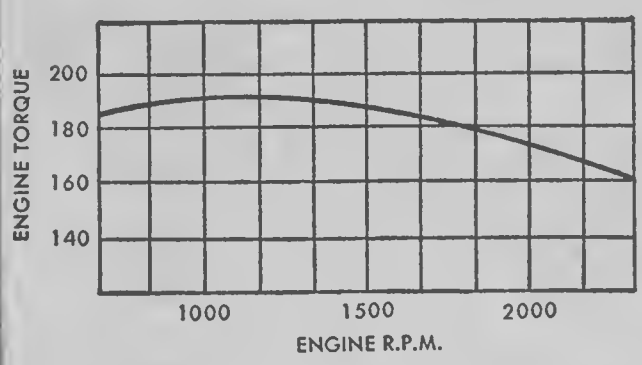

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Turning Over The Swath

If it does become necessary to turn the swaths in the field it should be done carefully

IF a swath is well formed and is lying well up on the stubble it is of very doubtful value to turn it, even if it is quite wet on the lower side. If the air is able to circulate around and through it, it is doubtful if the faster drying will make up for the cost of the operation and the heads that will be broken off and lost.

On the other hand, if the swath is lying near the ground, or has worked down through the stubble so that the soil below stays damp, drying is likely to be hastened by turning the swath and laying it on upright stubble.

A combine pick-up mounted on a swather is as good as anything else for turning swaths, and it breaks off a minimum of heads. The reel arms and batts are removed from the reel shaft, and the pick-up is mounted on the table of the swather. In many cases it will not even be necessary to take out the sickle, though the pitman should be removed. The pick-up should be positioned on the swather so that the swath is not delivered onto an old wheel track.

The attaching of the pick-up will vary with the make of swather but, in the view of H. A. Lewis, Department of Agricultural Engineering, University of Saskatchewan, attaching to most swathers can be accomplished with a little ingenuity.

The most generally accepted method of driving the pick-up is through a crossed V-belt from the reel shaft to the pick-up drive shaft. Pulley sizes must be so matched that the pick-up runs at the same speed as when operated on the combine. The belt can be tightened by raising the reel shaft away from the pick-up. Swaths may be picked up, fluffed out and relayed at speeds up to five or six miles an hour.

A side delivery rake is also used for turning swaths. The rake is run alongside the swath so that the rear end of the cylinder moves the swath about two feet to the left and turns it upside down. This works well, but its weakness is that the rake action breaks off quite a few heads, and the new swath is harder to pick up, as many of the heads are under the straw rather than lying on top. If there is more rain there is increased danger of the heads touching the ground and sprouting.

Another method uses a sheet-iron faced wheel, similar to a dump rake wheel, with spring fingers similar to pick-up teeth, spaced six inches apart around its circumference. It is mounted on a framework in front of the tractor, and is usually spring counter-balanced so that it will float at the level of the swath. It is mounted in a vertical position at an angle of 45 degrees to 60 degrees to the swath. Its action is similar to that of a side delivery rake. It is operated at speeds up to six miles an hour.

Swath lifters which raise the swath, fluff it and set it down on the same place are available. The weakness of this method is that the stubble is likely to be depressed and the ground wet.

Save The Stubble

STUBBLE burning has been very widely practiced over the grain-producing areas of the prairies, particularly in years when there is a heavy stand. Admittedly cultivation through heavy stubble can be very difficult, but, from the point of view of a permanent agriculture, it is hard to justify stubble burning.

If heavy stubble interferes with fall work it may be better to work the land in the spring instead. C. H. Anderson, Senior Agronomist, Experimental Station, Beaverlodge, Alberta, reports that in the Peace River area

FIELD

when such fields are left until the spring the straw often settles and rots enough to permit plowing or one-waying without too much trouble.

If the year following the working in of a heavy stubble should be dry the yield is likely to be considerably reduced. The reason for this is that both moisture and bacteria are tied up in the rotting of the straw in the crop year. Yields are likely to be increased by adding a nitrogen or nitrogen-phosphorus fertilizer in the cropping year.

As investigational work continues better means of handling heavy straw may be developed. In the meantime it is important to keep in mind that, in the end, that which is removed from the soil must be returned to it if fertility is to be maintained. If straw is burned this year, the lost fertility will have to be found somewhere else in the years to come. V

After-Harvest Tillage

Next year's yields will be increased by working the land as soon as the crop is off

WORKING land after the crop has been taken off in the fall will often increase yields. The crop the next year is affected in two ways: There is less weed growth, and additional moisture is stored in the soil as a result of the work done.

In areas where Russian thistle is a serious problem the working of land in the fall is particularly useful. Blading immediately after harvest at the Lethbridge Experimental Farm has been found to reduce the production of seed on the thistle plants by as much as 75 to 100 per cent.

Fall cultivation at Lethbridge, using the blade cultivator, the one-way disk or the basin lister, has increased yields of wheat from 14.3 bushels per acre to 15.7. On the Reclamation Station at Melita, Manitoba, plowing or cultivating the stubble immediately after the crop is off has increased the yield of oats seven bushels per acre over land that received spring cultivation.

Weeds are easier to kill immediately after threshing than they would be later. The standing grain shades the weeds and they are not as vigorous as if they had plenty of sun. After the crop has been down for some time the weeds become more vigorous and are harder to kill.

On the other hand, if wild oats are the main problem it may be better to wait two or three weeks after harvest before working the land. Wild oats do not normally sprout in the fall, so if the weather is dry and the seeds dry out and are then covered there may be a greater likelihood of them sprouting in the spring, at which time they can be killed.

Blading, in areas where this machine can be readily used, probably conserves more moisture than cultivating or one-waying. It retains a good, well anchored trash cover on the soil surface. Blading opens up the soil, as does one-waying or cultivating, and the standing stubble on the bladed fields holds more of the winter snow. V

Sales of Farm Machinery

THE steady moving from farm districts of the men who used to hire out to their neighbors, has been offset to some extent by the purchase of more machines. The wide selection of new and improved farm machines has enabled farmers to more effectively mechanize their farm operations, says J. M. Armstrong, Agricultural Engineering Division, Central Experimental Farm, Ottawa.

It is interesting to find that there have been preference changes in Canada during the last few years. There has been a trend toward heavier tractors, with the demand for standard tractors in the two and three-plow size growing, and the demand for one-plow and garden tractors declining. Sales of diesel tractors have increased, until today they make up about ten per cent of the wheeled tractors sold.

The most striking change in the tillage group has been the trend toward tractor mounted units. As would be expected, there has been a big reduction in sales of horse-drawn tillage equipment. There has also been a reduction in the sale of one-way disks and an increase in sales of diskers and heavy duty cultivators.

In haying equipment, sales of horse-drawn mowers have dropped sharply and no longer exceed sales of tractor mounted units. Sales of tractor-drawn mowers have markedly increased. The number of side-delivery rakes sold now exceeds the number of dump rakes, and sales of hay loaders have increased steadily. Almost 3,000 hay balers are now sold in a year, and sales of forage crop harvesters have risen to between 1,300 and 1,400 a year.

In harvesting machinery there has been a sharp increase in the sales of combines; self-propelled machines now account for over half the combine sales. V

Drying The Grain

IT is to be hoped that this year we will escape the necessity of drying harvested grain in large quantities. A few fundamental points should he kept in mind, if it is necessary to dry even small quantities.

Cereal grains cannot be stored safely if they contain over about 14 per cent moisture, and if they are likely to be in storage for any great length of time it should be under 14 per cent. Studies at Purdue University, Indiana, indicate that grain can be safely dried down from 18 per cent moisture to 12 per cent, if the proper techniques are used.

Air movement and heat are the two components required for the drying of grain. Heating air greatly increases its ability to hold moisture; the temptation to use excessively high temperatures should nevertheless be resisted, as temperatures over 115 to 120 degrees may render the grain unfit for certain milling and food processes. V

A Warmer House

A FEW spare hours can be spent to very good advantage some time this fall, before the weather turns cold. Work completed at the Dominion Experimental Farm, Swift Current, Sask., demonstrates that tight doors and windows can save a lot of fuel in the course of a winter.

It has been found that in a one-storey house, where weather stripping, storm windows and storm doors are properly installed, a saving of one ton of coal in eight may be expected. For a two-storey house, the savings are found to be slightly more than one ton in six, or 18 per cent.

It is generally felt that closed porches or vestibules are necessary on the prairies. These serve as an air-block in preventing an in-rush of cold winter air which chills the house and increases the cost of heating.

Close up all cracks in the house which might let in cold air. A good job can be done with weather stripping or caulking compound. If necessary, refit the doors and windows. Time spent will be paid for in comfort and smaller fuel bills. V

The start of the harvest—a time for rejoicing.

Fall Rye As A Second Crop

On most western farms fall rye is not suitable as the main cash crop, but it has a place on many

ONE of the neglected cereal grains on western Canadian farms is fall rye. It is generally thought of as a crop that can be profitably grown on light, infertile, dry land that is not too suitable for other, better crops. This ignores several of its virtues.

Wild oats is now recognized as Weed Enemy No. 1 and fall rye can compete with this weed on more favorable terms than most crops. Fall rye is normally harvested before the wild oats matures, and the strong, early growth of the crop discourages the weed. Light land that is prone to drift is held by a crop of fall rye. The fall growth stabilizes the soil through the fall and winter, and this, coupled with early spring growth, eliminates serious spring drifting.

Fall rye is admittedly not immune to wheat stem sawfly attack, but it is resistant. Also it is possible, when necessary, to gain some fall and spring grazing from the growing crop. Finally, it is seeded when other farm jobs are not pressing, and is harvested before the big fall rush. This better distribution of the labor load can increase farm income.

The recommended date for seeding fall rye is August 15 to September 15, though, if it is very dry, it is well to postpone seeding until just before freeze-up. The Experimental Station, Swift Current, Sask., suggests that another reason for delaying seeding until about October 1 is danger of grasshopper attack; if grasshoppers are numerous early seeding is inadvisable.

Highest yields are normally gained from summerfallow, but there is some added danger of winterkilling on fallow. Many people sow on stubble. Ordinarily wheat or oats stubble can be worked to prepare a seed bed and kill weeds, though if the land is mellow and quite free from weeds, the rye can be sown directly into the stubble. If the land is worked the working should be done with machines that leave the stubble standing to reduce the danger of soil erosion.

The recommended rate of seeding is about three-quarters to one bushel per acre, and the recommended depth is two inches.

One or two simple precautions will reduce the danger of ergot in rye. Ergot loses much of its vitality when seed is stored for one or two years, so it is advisable to use seed that has been in storage for at least a year. Also, reinfestation arises from spore growth on ergotized seed lying on or near the surface of the soil, making it important to see that the seed is down the full two inches, and is well covered. V

HORTICULTURE

[R. Hikida photo.

Northern Plains group at Morden: Prof. E. T. Andersen, Univ. of Man.; J. R. Almey, past president, Man. Hort. Ass'n.; E. J. Green, Mgr., Aylmer Canners, Morden (holding Morden midget cabbage); A. R. Brown, Prairie Gardener, CBC; and Dr. J. H. Schultz, N. Dakota State Coll. of Agr., president 1952-53, Northern Great Plains Section, A.S.H.S.

Manitoba Host to Plains Section A.S.H.S.

Skinner Nursery and Morden centers of interest for horticultural scientists from five states and the prairie provinces

by E. T. ANDERSEN

THE Province of Manitoba, and particularly the Experimental Station at Morden and Skinner's Nursery at Dropmore, were highly honored when they were chosen as the meeting places of the Great Plains Section of the American Society for Horticultural Science in 1953. The annual meeting of this group was held August 17 to 20; two and a half days at the Morden Station, and a day and a half spent in a tour to the famous hardy plant nursery at Dropmore to see and hear more of the leading developments of Manitoba's world-renowned plant breeder, Dr. F. L. Skinner.

A large attendance of over 150 persons took in the meetings; with about half from the north central United States and about half from Alberta, Saskatchewan and Manitoba. The group was made up largely of horticultural research workers from experiment stations and universities, but included also many extension workers, commercial nurserymen and seedsmen. Among others well known to gardeners on the Canadian prairies were A. R. Brown, CBC Prairie Gardener, and Dr. W. H. Alderman, recently retired as chief, Horticulture Department, University of Minnesota; men who have long been among the strongest leaders in developing horticulture on the prairies.

The extensive work of the Morden Station, under the enthusiastic and energetic guidance of Dr. W. R. Leslie, has never shown to better advantage. Growing conditions had been good, and the 250 acres of land devoted to the study of horticultural problems at the station were carrying excellent, well-grown crops of fruits, vegetables and ornamental plants.

IT is not possible in the space of this brief article to touch on more than a few of the many outstanding pieces of research and accomplishments displayed for the visitors.

H. F. Harp, head gardener, and Dr. Leslie, conducted tours through the extensive breeding and trial grounds of flowers, shrubs and trees. Morden Pink Lythrum, a showy hardy perennial flower, introduced in 1937 by the Morden Station has become one of the most popular flowers in prairie gardens, both in Canada and the United States. Two new varieties of this excellent flower have been named this year. These are Morden Rose and Morden Red. Both have darker red color and denser spikes than Morden Pink, and should prove valuable additions to our gardens. Thousands of seedlings, selections, and varieties of outdoor chrysanthemums are under test or selection. Many of these commence blooming in early August and continue till heavy frost cuts them down. These show promise of becoming one of the best flowering plants for fall and late fall color. As they tolerate more fall frost than most other late flowering types, they possess particular value. Mr. Harp is developing varieties of these chrysanthemums which can be grown from seed in the same way as petunias and snapdragons, and which will bloom well in their first summer. Grown as an annual in this way, winter hardiness will not be important.

Rose breeding at Morden has contributed several free-flowering bush types, of which the variety Prairie Youth appears most outstanding. This variety produces double-pink flowers in great quantity, which resist fading. This shrub deserves wider usage. A double sweet-scented white rose may soon be named and released for use.

Ornamental shrubs in the Morden arboretum are so numerous that the writer hesitates to name any in fear of passing up better ones. The work with rosybloom crabapples, double-flowering hawthorn, mock-orange, and double-flowering plums, or almonds, merits special mention. From this work have come such prominent and popular varieties as Almey crabapple, Toba hawthorn, and Prairie Almond, a double-flowering almond, or plum. (*See next page*)

HORTICULTURE

ABOUT 150 acres are devoted to tree and small fruit studies. This vast planting is under the capable direction of Messrs. C. R. Ure and Aleck Hutchinson. Breeding work is active with apples, crabapples, plums, pears, apricots, cherries, strawberries, raspberries and gooseberries. An excellent apple and crabapple crop was in evidence, with varieties like Haralson, Heyer No. 12, Moscow Pear, Mount and Rescue showing to good advantage. Rescue apple-crab was at its peak of maturity and drew favorable comments from all who sampled it as raw fruit. The new Morden introduction, Kerr, an apple-crab named in 1952, was carrying a heavy load. It is a cross between Dolgo and Haralson and produces a fruit similar to Dolgo in color and about the size of Rescue. It also has good qualities for both preserving and jelly making. Several selections of standard apples having high dessert qualities appeared promising.

Mr. Ure expressed the opinion that striking improvement of plums should be possible with the use of the northern forms of Japanese plum. This species seems to have greater hardiness than our native species and also higher fruit quality and earlier maturity. Several selections have already been made at Morden and are out on extensive trial.

Vegetable research is proceeding steadily and surely under the skillful direction of Messrs. C. Walkof and V. W. Nuttall. The expansion of vegetable canning in southern Manitoba and the recently erected canning plant at Morden by Canadian Canners Ltd. have provided new stimulation for these men. A visit to this plant by the group amply demonstrated the possibilities of vegetable canning in the Morden area. The development of hybrid varieties to capture the extra vigor and yielding ability of such varieties is a prominent part of the vegetable breeding work. The hybrid sweet corn, Sugar Prince, has been used as an early canning and home garden variety for several years. An improved Sugar Prince is soon to be introduced. Two hybrid tomatoes, Monarch and Mustang, have claimed top honors for vigor and yielding ability, in many parts of Canada. Meteor, an inbred variety introduced in 1950, has been widely acclaimed as an early home garden or market variety.

From an experiment comparing a garden under irrigation, with one under natural moisture conditions, Mr. Walkof has found that even in years of good rainfall, crop yields can be increased by 75 to 100 per cent under irrigation, and quality greatly improved. The irrigation water for this project is obtained from a small dugout.

To aid in evaluating the quality of varieties of fruits and vegetables produced, and to study methods of processing and storing food products, a fruit and vegetable products laboratory was built and put into operation in 1946. Dr. A. L. Shewfelt is in charge of this laboratory, and by chemical and other analytical methods, the quality of products for canning, freezing or jelling, and nutritional values, may quickly be determined. Of special interest to housewives is the discovery that freezing fresh crabapples will increase the yield of jelly by as much as 50 per cent. This also provides a means of storing them indefinitely for future use. Dr. Shewfelt has also built a 12-cubic-foot home food freezer, which has operated continuously for almost three years. Plans may be had by writing to the Morden Station.

Although items of business were few, it is of interest to note that a resolution was passed adopting the name "Dropmore Elm" for the northern hardy strain of Siberian elm, (Ulmus pumila). This name was chosen in recognition of the fact that Dr. F. L. Skinner of Dropmore introduced the strain to this continent. V

[R. Hikida photo.

Dr. W. H. Alderman, retired after 34 years at the Univ. of Minn., accepts a presentation at Morden.

Recommended Varieties

A matter of recurring annual interest to horticulturists is the revised list of recommended varieties for fruits, vegetables, trees and shrubs. For the six zones into which Manitoba has been divided, only three new fruit varieties were added this year: Renown, the Indian Head apple-crab which now takes its place alongside Rescue and Trail; the Dropmore Blue Plum, and the Honeyking Raspberry from the nursery of A. J. Porter, Parkside, Saskatchewan. Alberta has for some years published a similar list of recommended varieties. Copies of these may be obtained by writing, in either province, to the extension horticulturist, provincial department of agriculture, Edmonton or Winnipeg.

Renown is fully hardy, productive and sturdy. It is a seedling, the fruit of which is similar to Trail in size and coloring. It matures in late August, or early September, between Rescue and Trail, is of good quality, with a pleasant, mildly sweet flavor, perhaps a little flat.

The Dropmore Blue Plum is hardy in all zones of the province, a vigorous grower and annual heavy bearer. Though not actually a blue plum, it has pronounced blue bloom. The fruit is of good quality, firm texture and resembles the wild plum if cooked when ripe, but the skin is tender if cooked on the green side. V

POULTRY

These healthy, vigorous birds are just about ready for market.

Diseases Can Be Controlled

Veterinary convention reports brought hope to poultrymen battling bronchitis, newcastle, and other diseases

ALTHOUGH a recent survey showed that 70 per cent of all poultry flocks in Canada are infected with bronchitis, this disease which has spread so rapidly the past three years, can be controlled by spraying the flock with vaccine when outbreaks occur. This statement, made at the Toronto convention of the American Veterinary Medical Association, by Dr. J. F. Crawley, head of the veterinary section of the Connaught Medical Research Laboratories at the University of Toronto, held out new hope in the battle against one of the nation's worst poultry diseases.

The vaccine may be used on day-old chicks that carry parental immunity. The parents could gain immunity either through vaccination or natural exposure to the disease. The vaccine will protect poultry for at least 18 months.

This was only one of the many diseases discussed at the convention this summer. Newcastle disease is another of recent importance that caught the spotlight when two Massachusetts Agricultural Experiment Station scientists, who have been searching for methods of reducing the cost of control, reported that dried vaccine may be used as successfully as frozen vaccine, in spray form. Since the distribution of frozen vaccine for most farm flocks represents a problem, and since vaccinating by hand is a slow expensive procedure, this discovery will result in a big saving of money to flock owners. They did caution that further study is needed before this technique can be put to practical use in protecting baby chicks.

Turkey growers got hopeful news too at the convention, for Washington State College research men reported some success in the use of a dead erysipelas bacterin to control the costly disease, erysipelas. Although a first dose of the bacterin gave a degree of immunity, the use of a second dose in several flocks brought increased immunity.

A plea for more research to control a poultry disease causing food poisoning in human beings was made by Dr. E. E. Ballantyne, veterinary services director for the Alberta Department of Agriculture. Pointing out that salmonellosis is an increasing problem both to the poultry industry and to those interested in public health, he noted that 18 different types of salmonella bacteria have been isolated from poultry in Alberta, and he said 12 of the same types have been isolated from humans since 1949.

He suggested a need for study of possible egg disinfection, improved methods of hatchery fumigation, sanitation, and disinfection, and better methods of detecting the bacteria in flocks.

In the field of nutrition, antibiotics for poultry came in for discussion, and Dr. J. D. Nadeau, Saint Hyacinthe, Quebec, said they are not the magic answer to every sickness.

"Antibiotics are drugs, and they cannot be expected to replace vitamins or amino acids in rations," he said. He warned that the feeding of antibiotics may interfere with the natural immunity of chickens to infectious diseases and the drugs may upset the normal bacterial flora of poultry. V

Cutting Down Chore Time

MANY pullets in farm flocks will be going to the laying house this month, so it's time to consider the accommodation that is to be ready for them. Many flock owners have eliminated a great deal of work from their daily chores by replacing dropping boards with the dropping pit. To do this, roosts are slung 18 to 20 inches above the floor and heavy woven wire used to fence off the section of the floor under the roosts where the droppings accumulate. This need only be cleaned out every few weeks.

Community nests are coming into popular use, for they are easier to keep clean, result in fewer broken or dirty eggs, and facilitate egg collection. This nest is simply a large darkened box without partitions in which the hens sit side by side to lay their eggs. Six or eight inches of dry

POULTRY

shavings provide the nesting material.

Deep litter, too, cuts down on the work of looking after the flock, for it need only be cleaned out once or twice a year. When the birds are first housed, a foot of straw is put on the floor and as this becomes broken down during the winter, more is added. When deep litter is used, good ventilation is more important than ever, to prevent the pen getting damp. Frequent stirring with the fork, and the addition of one pound of hydrated lime per bird will assist in keeping the litter dry. V

Comfort Means More Eggs

SINCE winter comfort means winter eggs, a few hints on how to achieve this comfort will interest poultrymen. The good handbook, "Guide to Farm Practice in Saskatchewan" points out that the trend in poultry-house construction is toward a wider house, 28 or 30 feet square or larger. This type is cheaper to build because less wall area is required. It is easier to keep warm, because of this smaller wall area, and it is easily ventilated.

For heavier breeds, every bird should have four square feet of floor space, while three and a half is plenty for the lighter breeds. Thus a pen 20 feet square with a six or seven foot ceiling is recommended for 100 large birds.

To prevent the birds being chilled in the winter, body heat must be preserved by means of insulation. Either 2 by 4 or 2 by 6-inch scantlings may be used as studs, with paper and siding on the outside and shiplap or plywood for sheeting on the inside. Then the space between can be filled with insulation such as planer shavings, or chaffy straw.

Cement, wood or earth flooring may be used, but cement is best if it is insulated from the ground. Six or eight inches of gravel or cinders under the cement will do this, and a concrete floor is much easier to keep clean, or to clean up, especially after a disease has struck the flock. V

Give the Flock Fresh Air

FOR each pound of live weight, a hen breathes about three times as much air as does a cow, so ventilation in the poultry house is essential to avoid dampness. The flue outlet system of ventilation requires careful regulation, but gives good results, points out the Saskatchewan "Guide to Farm Practice." The size of the outlet flue must be determined by the number of birds in the building, allowing two and one-half square inches per bird. A flue 16 inches square then is large enough for 100 birds, while one 22 inches square would be required for 200 birds. This flue carries air from the floor, right up to two feet above the ridge of the roof. Size of the opening is controlled by an adjustable slide.

The flue must be insulated, from the ceiling level to the top, and a flat cap must be built eight inches above the outside level of the flue. Fresh air is admitted through tilted windows or inlet vents. V

FARM YOUNG PEOPLE

Fifteen idle acres planted to trees was the one-day work score of this club.

Building a 200-Acre Forest

A new Ontario forestry club already has planted 15,000 red pine trees and in 10 years plans to reforest 200 acres

SPURRED on by the interest of parents, teachers, a local Fish and Game Association and business people in the community, 51 members of the Lakefield 4-H Forestry Club in Ontario, are in the midst of a large conservation project. Ten years from now an entire 200-acre block of land, now largely lying waste, will be flourishing with trees.

This energetic club has already planted 15,000 red pines on the first 15 acres along the Otonabee River near Peterborough, Ontario. The land was made available by an industrial firm, and before ten years are out, members hope to have transformed the entire 200-acre stretch of open, idle land into a dense forest. They are demonstrating on a large scale, their forestry club principles. These are that land suitable for reforesting can pay rich dividends in soil and water conservation, and in the production of valuable crops of Christmas trees and lumber, if only it is treed.

The eager Lakefield Club members have not done it all themselves. A large part of the community is now involved to make the project of wider interest. The club was only organized last winter, and during its early meetings at the Lakefield District High School, the members decided to undertake the project.

A local implement dealer furrowed the land for them this summer, a local farmer used a horse and walking plow to plow the steep grades that couldn't be touched with tractor; and one day in May, club members came out en masse to tree the 15 acres.

Their program was regarded as important enough that Ontario's former minister of lands and forests came out to commend the young farmers on the valuable work they are undertaking, and got the program rolling in traditionally official style by planting the first tree.

The 15,000 seedlings, apparently infected with the same enthusiasm shown by the shovel and bucket brigades which planted them, responded admirably by growing a full two inches during the first six weeks. V

Keep Farm Life Fun

THE satisfaction of growing a heavy-yielding weed-free crop, or a well-finished steer, go hand in hand with successful farming. But other activities make farm life fun for young people and accomplish something worthwhile, too. Here are a few other ideas which lift farm living further into the realm of adventure and keep it interesting for everyone taking a part.

The Hafford, Saskatchewan, 4-H Grain Club grows potatoes to pay for some of their other activities. Former club leader, T. H. Ashcroft, deserves much of the credit, for he supplies the acre of land that is used. Enthusiastic club members look after the field, harvest the crop and sell it to get those much-needed dollars.

The Demaine Grain Club members this year are becoming so conscious of soil moisture that they are having measurements taken in their plots. They have been listening attentively, apparently, to soils experts who have pointed out that there is no use trying to grow a crop without sufficient moisture in the soil.

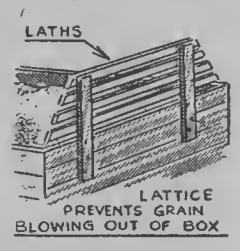
Members of the Armley, Saskatchewan, 4-H Beef Club plan to have a permanent record of their activities, but they are not going to wait for years to make use of it. Club leader Mrs. Mary Kingsley notes that the club has bought a movie camera to take pictures of the members showing their calves. Members can watch themselves in action, see their own mistakes, and make faster progress in becoming expert showmen. V

WORKSHOP

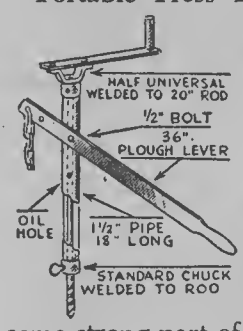
Some Handy Shop Ideas

Practical men tell of ideas that they have used and found helpful around the farm and home

Grain Saver. I bolted a lattice like the one shown in the illustration to the front end of the grain box on my truck, and found that it prevents the wind from sweeping grain off the top of the loads. The lattice is made of laths nailed to pieces of one by four lumber.—J.G., Sask. V



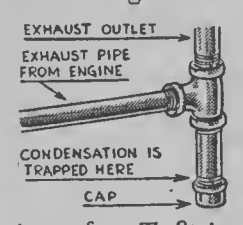
Portable Press Drill. A drill, constructed as shown in the illustration, can be used on the work bench or taken off and used right on the machines. On a machine use a logging chain to bolt the end to some strong part of the machine being drilled. On mine I use a standard ½-inch round shank drill, and it will drill up to ¾-inch without any trouble.—D.L.H. V



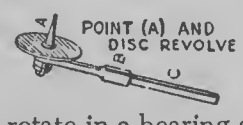
Avoid Burst Bottles. I have had bottles that were filled right to the top with linseed oil, cylinder oil and turpentine burst in hot weather. It is much safer to leave two or three inches of air space at the top of the bottle to cushion expansion.—R.J.R. V

Holding Boot in Place. It is often difficult to hold a heavy boot in place while a tire is mounted. I position the boot over the break, punch four small holes through the casing between the tire ridges, and fasten the boot in place with four small wood screws. After the tire is on the wheel I partially inflate the tube and then remove the wood screws.—H.E.F. V

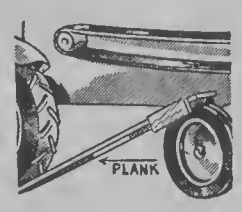
Moisture Trap. A trap in the exhaust line of a gasoline engine operated in the basement will catch the moisture that ordinarily condenses and gives trouble by running back into the motor. It consists of a T fitting on the end of a horizontal run, with a six-inch nipple dropped down and a cap screwed onto it.—A.B., Sask. V



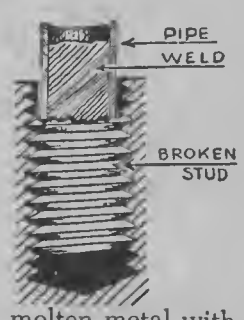
Belt Remover. It is easy to make a belt remover of the kind illustrated. The point A and the disc rotate in a bearing at the top of holder B. A pole C of any desired length fits into the holder B. Never pull off a running belt with your bare hands. —W.F.S. V



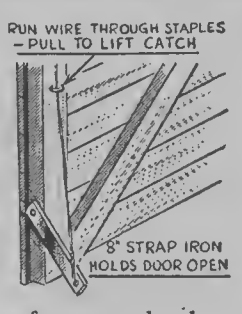
Blocking the Tractor. To keep the tractor from moving I fit a plank under the front part of the rear wheel and onto the top of the front wheel, with blocks to keep it from slipping off the wheel. To hold it more secure, a long, bent bolt can be hooked under the front axle and taken through the plank and tightened in place with a wing nut.—I.W.D. V



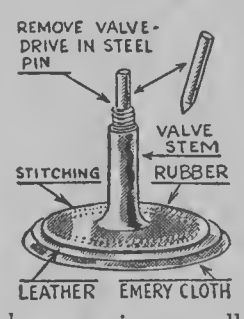
Broken Stud Removal. Often a broken stud is drilled out and new threads cut. The threads can be saved by putting a short piece of pipe onto the top of the broken stud, and filling the pipe with molten metal with a welding outfit. A pipe wrench on the projecting piece of pipe will now turn out the stud.—W.F.S. V



Garage Door Block. It is a nuisance to always have to look up a piece of stick to block garage doors open. I bolted a piece of strap iron to the bottom of my doors as shown in the illustration, and ran a wire up three feet to a hook so I can lift the block without bending over. A hook a little higher will hold it up when it is not in use.—H.H.M. V



Simple Buffer. Cut the valve part out of a discarded inner tube, cut the rubber to a circle and sew to this a piece of leather for backing. Fasten a circular piece of buffing or sanding material to this leather circle. Remove the valve and hammer in a small piece of steel rod. Use this piece of rod to attach it to an electric motor or power drill for driving the buffer. I have several of these buffers around the house and shop, and use them all the time.—M.H. V



Life Saver. As a safety device in case of an overturned boat, attach lengths of clothesline to each gunwale, making three or four loops along each side. In case of an upset these should be grasped, and held until help arrives.—L.I.H. V

● This feature is furnished monthly by United Grain Growers Limited

MONTHLY

Crop Year End Report Reveals New Records

Preliminary figures issued by the Board of Grain Commissioners for Canada reveals that Canadian grain producers, with the aid of associated services, established a number of new records during the crop year ended July 31. Farm deliveries to the licensed elevator system amounted to 818 million bushels — nearly 13 per cent greater than the previous record set in the 1951-52 crop year. An all-time high for producer wheat marketings of 521.6 million bushels was also recorded, surpassing the earlier record set during the 1928-29 crop year. Deliveries of other grains from Western and Eastern farms were oats, 112 million bushels; barley, 160 million bushels; rye, 16 millions, and flaxseed, 8.5 million bushels.

In contrast to the past few years, the 1952 crop was in relatively good condition, a factor which enabled the country elevator system to ship a total of 742 million bushels of wheat, oats, barley, rye and flaxseed. Receipts at the Lakehead terminals were only approximately a million bushels short of equalling the record of 531.5 million bushels established in 1944-45 under the impetus of war-time requirements. Lake shipments of all grains amounted to 458 million bushels exceeding last year's 420 million bushels and second only to the 1944-45 movement.

A new record was made for vessel shipments out of the Pacific ports with loadings of 121.5 million bushels of wheat, oats and barley, compared to 113 million bushels in 1951-52. The steady increase in shipments through the Port of Churchill was continued with an increase of approximately one million bushels over the previous year's record of 8.6 million bushels.

Deliveries of wheat to overseas countries and the United States were 306 million bushels and 23 million bushels respectively, making a total wheat export of 329 million bushels. While this total was exceeded in 1928-29 the two figures are not strictly comparable because of a technical change in the method of recording and definition of exports effected in 1936. Thus the 1952-53 exports of wheat may be considered a new record in the history of the Canadian grain trade.

Another record was established with the export of 119 million bushels of Canadian barley. The overseas movement of oats fell off from 11 million bushels in 1951-52 to 5.3 million bushels while shipments to the United States declined from 62.7 million bushels to 56.9 million bushels last year.

The foregoing figures relating to last year's grain movement are preliminary and are subject to revision by the Board of Grain Commissioners when the final returns for the crop year are received. V

A Wheat Problem in the Making?

New Forces Emerge

A number of forces now emerging in the current wheat situation are leading to some uneasiness with respect to the immediate market outlook for Canadian wheat. In recent weeks, importing nations have been reluctant to commit themselves with the result that overseas' sales have declined from the figures established for this time last year. The failure of the United Kingdom to sign the new International Wheat Agreement, the build-up of wheat stocks on this continent and the prospects of another large crop are contributing to a situation which is difficult to assess. Certainly no one is prepared to predict what prices this year's crop will bring.

On the supply side, the wheat carryover in the four major wheat-exporting countries (United States, Canada, Argentina and Australia) on July 1, has been estimated at around 1,188 million bushels, double the amount for the corresponding date last year. Production will be large again this year and may possibly result in an increase in the carryover next year.

In addition, the views and policies of Canada's best wheat customer, the United Kingdom, are important factors. The United Kingdom is evidently acting on the reasonably sound premise that wheat prices will fall under pressure of supply and is determined to see this occur in the near future. Her attitude is not directed so much toward Canada as toward the price support policies of the United States. The British have felt for some time that U.S. farm policy supported the world price of wheat to an undue degree. The London, England, Times of August 1 expressed Old Country opinion with this question: "Is the United States Government going to continue to use public money indefinitely to prevent American wheat being sold abroad, except at a price which in the view of important consuming countries is decisively too high and which is certainly much higher than it would be in a genuine free market?"

Britain is currently occupied with the decontrol of her wheat and flour trade and is buying wheat in only small quantities. The trade is now in private hands and, with the release of government-owned stocks of wheat, plus recent purchases, millers are probably more than covered for the remainder of 1953.

With plenty of wheat available in the world today, importers may be anxious to shop around or at least willing to play a waiting game. Sydney Campbell, Reuters Financial Editor, confirmed this view when he was reported to have said recently that British millers expect a world-wide glut of wheat and were therefore in no hurry to buy.

Campbell pointed to another difficulty, at least a difficulty from the British point of view. He stated that British millers would buy more Canadian wheat if they could obtain Nos. 1 and 2 but he maintained that the Canadian Wheat Board does not offer these grades in a manner acceptable to the importers. Cargoes sold recently from the Port of Churchill, he said, were of the required grade—No. 1—but not at a definite price. The price was to be the Board's price four days before loading of the wheat.

This indicates a further difficulty involved in the wheat trade with Great

COMMENTARY

Britain at the present time. Since futures trading has not been re-established on the Liverpool market, importers, and also the Canadian Wheat Board, are confronted with the problem of working out a system whereby the importers may purchase Canadian wheat without bearing the risk involved in day to day price fluctuations. Since the Liverpool futures market is to be on the basis of wheat in store, it cannot re-open until there is space available to store privately-owned wheat. Storage is presently glutted with stocks and arrivals of government-owned wheat. The London futures market, which is on the basis of cost, insurance and freight does not face this problem but there are other difficulties which are unlikely to be overcome before October at the earliest.

Obviously, the Canadian Wheat Board is faced with a problem in this connection and while there are reports of Board suggestions, no definite working plan has yet been announced. Fear is expressed in some circles that British traders may turn to the United States for their purchases because of the fact that hedging facilities are available in that country.

Meanwhile, United States wheat producers have voted overwhelmingly in favor of wheat marketing quotas. As a result of last month's referendum, wheat marketed in the 1954-55 marketing year will be supported at 90 per cent of parity if grown within the individual farmer's acreage allotment. If farmers had voted against quotas, the price support would have fallen automatically to 50 per cent of parity. (See P. 60 for details of price support program.)

Without going into the reasons for the strong positive vote in the marketing quota referendum, the move is a realistic one in view of the current wheat situation. United States wheat production expanded greatly during the war years and was a substantial contribution to victory and the rehabilitation which followed. With a return to more or less normal conditions, it was essential that production be cut back to a lower level. Recent trends indicate the difficulty of maintaining rigid support price levels without production controls.

The imposition of marketing quotas in the United States will have a widespread influence on the wheat situation if only because of the effect on market prices. A break of nine cents per bushel in wheat prices on the Chicago market immediately preceding the referendum indicated the importance of the high price support policy. Immediate reaction in Canada was a reduction of the Canadian Wheat Board offering price to countries within I.W.A. and outside the Agreement to $1.94 per bushel, 11 cents below the Agreement ceiling. If the farm vote had been against marketing quotas, the drop in the support level would not have applied until the next crop year but the effects would have been immediate. If only because of the great supplies of wheat on hand, the market needed the strength of the price support program. A reduction of the support level would have led to a probable drop in current market levels. It is unnecessary to argue the benefits to the Canadian producer.

However, the price support program may yet undergo considerable strain. Wheat loans are dependent upon the availability of safe and adequate storage. At this time, every available bushel of storage space is being utilized and it takes time to build suitable storage structures. The United States government has made provisions for the payment of a slightly reduced loan on wheat stored in the open field, but this provision is for 90 days only. What happens after this period has elapsed is a matter for conjecture.

Prior to the marketing referendum, considerable thought in the United States was being devoted to a new wheat support program. This may not now receive as much publicity as would otherwise have been the case but there is no indication that the idea has been dropped.

Two-Price System Suggested

Referred to as a two-price system, it is more properly a one-price system for wheat marketing supported by a certificate redeemable in cash by the farmer for that portion of his crop which is sold on the domestic market for the production of human food products.

Basically, the purpose of the scheme is to assure the producer of full parity for that part of his production which is used for domestic food use. The balance would be sold for feed or export at whatever the market would bring but the farmer would be guaranteed a stipulated level of parity for this portion of his crop. It is proposed that this level reflect the feed relationship between wheat and corn so that cheap wheat would not depress the corn market. Under this system, all wheat would be sold on the open market at whatever price it could command.

Prior to the commencement of each marketing year, the secretary of agriculture would estimate that portion of the crop which would be used for domestic food consumption. Individual farmer shares of this amount would be determined for which he would be eligible for certificates redeemable in cash. The certificates would be honored by the Commodity Credit Corporation upon their presentation to that body.

For the proportion of his crop outside the domestic requirement, the producer would receive some stipulated percentage of parity when the market price dropped below that level. At least part of the government disbursements to farmers would be retrieved through a processors' excise tax.

Despite the obvious difficulties shaping up in the wheat trade, the Canadian Wheat Board expresses optimism and assurance that it will be able to dispose of Canadian wheat satisfactorily. Although the Board has a tremendous task ahead, it has disposed of other difficult situations; we trust that Canadian and U.S. policies will enable us to sell the larger portion of our crop at fair and reasonable prices. V

Our Hired Man

The old, dead days beyond recall were best. The hired man was an institution to be respected and made a member of the family

by BESS FOSTER SMITH

IN one of my favorite farm magazines I read about the wonders the new farm-hand loader can perform. With it "two men can stack forty tons of hay in a day," the paper says. On the next page I find an intriguing picture of an automatic barn cleaner. It is swishing off the cement floor of a cow-parlor and swabbing the deck of a loafing shed in nothing flat. "It saves two hours chore time every day in the year," we are told. Then there follows page after page of newly invented gadgets with pulleys and levers and clever devices to make the farm over into an efficiency factory.

Maybe it is because I have not lived on the farm for quite a spell, and maybe I am just plain old-fashioned, but with all this mechanized business I can't believe there is much pleasure left in farming. It is more like a business now, than a way of life. And after the installments on the tractor and combine and loaders and lifters are all met, I often wonder if there is much more left in the bin for a wintery day than we had back at the turn of the century.

There were enough of us to get the hay up before it rained, and we had a wonderful time doing it. We milked the cows in the corral with a pail between our knees. There was no cow-parlor and no loafing shed, and the cow-slips lay where they fell. Back of the horse barn the manure was piled higher and higher, sweating it out until fall.

The farm was a good place to grow up. It was close to nature and there was a certain freedom and self-sufficiency about it that goes with growing up. We had a real *live* farm hand. We called him Our Hired Man. He was all things to all people. He worked for $30 a month and his keep, and believe me, we kept him—from as far back as I can remember, until I went away to school.

Our father always gave us youngsters to understand that, next to himself, the hired man was the most important person on the place. The next best chair and the next best place by the air-tight heater were his, evenings. He appreciated a man who could get up in the morning without being called, and do the chores before breakfast: one who was always gentle with the horses, and kept his mouth shut.

Mother was strong for him, too; strong as horseradish. This was because he knew his kitchen etiquette perfectly. He could see an empty wood-box, or water-bucket—and did something about it — without being nagged at for half an hour. When he washed up for meals he never left dirty water in the pan, or hair in the comb, or another black spot on the towel. After he had finished with these ablutions he slid quietly into a chair in the corner and tipped back against the wall until the meal was called. For these favors mother always reciprocated by serving him the first hotcakes, the biggest piece of pie and the choicest parts of the chicken.

George, my teen-aged brother, looked up to him because he set a precedent of what a young man ought to be. Besides, he often saved him an unpleasant wood-shed experience, by casually picking up scattered tools and closing open gates and stable doors after this growing, absent-minded young bumpkin.

When the busy season was on, father didn't expect the hired man to have to chore, or milk the cows. We kids could do that. When he came in at dusk and put up his team, his day's work was done. But once in a while, like when George was learning the Constitution, orating all the way after the cows and back—and brought in the wrong ones, the kind that don't give milk—the hired man with a soft spot in his heart for "the young feller," would stretch his seven-league legs over the hill to the west pasture just as though he had not followed the plow since dawn, and bring home the heavy-bagged cows, Boss, Effie, and Old Whitey and the rest, all the while making the hills echo and re-echo with "Terra-tomba, Terra-tomba, I must be on my way!"

Although our blustering father said he didn't hire a man for the girls to make a fool of, and ordered them to cut out making "those goo-goo eyes," each of my big sisters sparred over him and manoeuvered for some favor to brag about to the others. But none of them got very far. If he wiped the supper dishes for Annie, he carried the milk pails to the corral for May. Later he would strum his guitar for Bea, while she played the organ. He tried not to show partiality. Our hired man was a sober fellow, with bow legs like our parlor chairs, and a face like a horse. Although he did not exactly fill the bill for a matinee idol, or a knight-errant, still his presence influenced the girls sufficiently to cause them to get up and help their mother with breakfast, or get their hair done up before dinner time.

DURING corn husking time, I remember, May used to get up before dawn to sew, by the smoky lamp-light, new thumbs on the hired man's husking mittens. She would feel well compensated when those fuzzy, pine-tarry, mitted paws grabbed onto her delicate fingers as she fitted the thumbs in place. Then, while at breakfast, if he heard the neighbor's wagon roll out over the rough, frozen ground, he would leave the last stack of hotcakes untouched, and rush for the barn.

May would throw a shawl over her head and run out with his extra mittens and jacket. As he drove past the house he would stoop down from the high box, and sweep them up, the horses still on the trot, the bang board banging, and the wagon wheels whining with the still cold.

This little ceremony, there in the brittle-cold breaking dawn, was something akin to Elaine handing the scarf and shield to her Lancelot—for after

all, wasn't this young gallant nearly "busting" himself to out-shuck that neighbor boy, just to show her who was the best man?

Yet, no matter how intriguing a by-play might be with this "tall and silent" one, the Foster girls had been forewarned. All too often it was retold, the dire calamity that befell our beautiful and cultured Aunt Lil, who ran away with their hired man and led a dog's life thereafter out in bleeding Kansas! And probably she would have starved to death except for the generosity of my good Uncle George, and our annual contributions of old clothes and dried apples.

On the other hand, our hired man may have observed that although the Foster girls had a smattering of the arts, such as oil painting and playing the organ, and were friendly and full of fun, they were much less skilled in the domestic arts which make a young man's fancy turn to love. He may have observed that they were too willing to "let Ma do it" when it came to baking, sewing, washing and ironing. But if he did thus calculate, he kept his thoughts discreetly to himself and his behavior was most circumspect.

IT might sound as though our hired man worked for a small wage. Nevertheless he had just about all the things a young man's heart could desire. He had the shiniest top-buggy in the whole neighborhood and the fastest driving horse. She wore the prettiest fly net with red and yellow tassels on it. He had a good store suit and a silk handkerchief, and a guitar all inlaid with pearl. At the country dances he learned all the popular songs, "Ta-ra ta-ra-Boom-de-ay," and "O Johnny, O."

He liked to sing hymns, too, and Bea would practice up his favorite ones on the organ, and on stormy Sunday mornings, when there was a fire in the parlor and the hired man had on his store clothes, smelling of sweet sen-sen, they would sing together from the old Gospel Hymn Book such classics as, "Work For the Night Is Coming," and "Bringing In the Sheaves."

Howsomever, I think I always felt a bit jealous of my big sisters, and maybe they envied me, their little red-headed, freckled-nosed kid sister, my more intimate companionship with the hired man. For me, he was someone to fix my broken swing or let me ride a work-horse from the field, and his blue polka dot handkerchief was always ready to dry my tears or wipe my nose. No wonder I was his devoted henchman. That is why for me it is hard to think of life on the farm without that "next to kin," that vanishing American, the hired man.

It is little wonder that I resent all the mechanized gadgets that are taking his place, and that start me straying off on a nostalgic trail down memory's lane. Of course I am thrilled to see how much more easily work can be done, and how long, back-breaking hours can be saved by modern methods of farming. And if I can be sure that the dreams and the romances of the boys and girls growing up now on these mechanized farms are fuller of opportunities and better ways of living than the old days were for us, then I shall forego all I have said, and go all out for progress and more progress. V

A Dean Retires To Work

Continued from page 13

doing. He must see new machinery and ponder how it would be used under the special conditions of B.C. He must examine new fertilizers and insecticides and animal feeds. With all this knowledge, he must be ready to give a new batch of students their first background in agriculture, and yet tell them what the latest developments should mean to them. And all the time there were calls from farmers visiting his University office with their problems, requests to act on this or that board, or to make speeches. In addition, there were the duties, both routine and casual, associated with the busy life of the University.

"THE greatest change in farming in my lifetime has been brought about by machinery," Dean Clement said recently.

His comment is borne out by one aspect of the work of Clement Consulting Services. In examining a farm property for a prospective buyer, the Dean and John are careful to see what machinery the farm possesses, to note its condition, and whether, in terms of its size and power, it is what this farm needs for its particular requirements.

It was the stream of callers to the Dean's office at the University of British Columbia, which first laid the seed in his mind of a consulting service that would answer the very questions which constantly arose. In his later years at the university, while talking to callers or moving about the province advising them, the scheme took shape. In 1947, two years before his retirement, he was ready, with John, who had graduated in 1942, to set up Clement Consulting Services.

The firm was set up as a family affair before the Dean's retirement; and business came slowly, as word spread through the industry that the old expert had finally quit teaching and gone into business for himself.

"The thing grew because you might say just about every farmer in the province knows the Dean," a friend said. "When they need advice, he's the man they want more than anyone else."

Whether the problem is starting a poultry farm, getting better grass for cattle, irrigating a berry farm, increasing milk production, or deciding how much to pay for a mixed farming proposition, the Dean and his son examine the show and set down their advice.

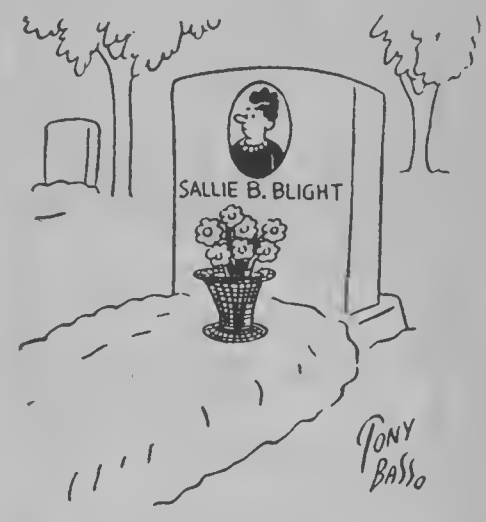
The first big consulting job which the firm landed was one which was a very touchy subject on the west coast. This was the payment for Japanese farms expropriated early in the war, when all Japanese on the west coast were moved inland as a security measure.

Some of the 252 farms the Clements examined had been vacant for six years since the move; some had been operated part of the time; some had had roads built across them; and each had features which made the study of its current value a separate operation.

The Clements obtained the original appraisal forms, from which the amount paid in expropriation had been calculated. They worked out the value of the produce of each farm in 1940, to get a reasonable value for the acreage. Then they applied the "Clement formula" to get a figure for the actual value at that time. The job took months. Their report, which recommended payment of 80.6 per cent more than had actually been given the Japanese, was vindicated when the courts awarded payment on the basis of about 79 per cent.

THIS case, in which the findings in a complex inquiry were upheld in court, was a substantial boost for the firm; and today, father and son are as busy as two men can be in a variegated farming area like the Fraser Valley, where most of their work is found.

The work is divided into three broad categories: advising city businessmen who want to buy a farm, advising



THIS IS A PORTRAIT
OF SALLIE B. BLIGHT---
TRIED THE CELLAR STAIRS
WITHOUT ANY LIGHT.
BETH WILCOXSON

farmers on specific problems, and advising other farmers who want to buy or sell farms.

The city clients can be grouped according to their objectives: those who want a farm as a plaything, perhaps for horses or for produce, but to whom expense is no object; those who want to buy, with retirement in mind, and who want the operation at least to break even; and those who want a farm partly as a hobby, but who want a reasonable income from the produce.

Up and down the Fraser Valley today the Dean meets some of his own graduates. He regards them with his quizzical smile, and says he hopes they remember what he told them, and won't have to call him in for any more help.

He hasn't changed much from the way they remember him. Like the people who sat with him on conciliation boards, these ex-students say, "He was always fair, but he could get tough."

His grads remember him, with his systematic manner and preciseness of mind, as a stickler for protocol. He instituted the dean's banquet, for the graduating class, which his successor has carried on. Attendance was as much a requirement at this function, as for lectures. Like the regimental dinner, you went—or else. Without browbeating anybody, his grads recall, the Dean got what he wanted. They hope he's getting what he wants in his new enterprise. V

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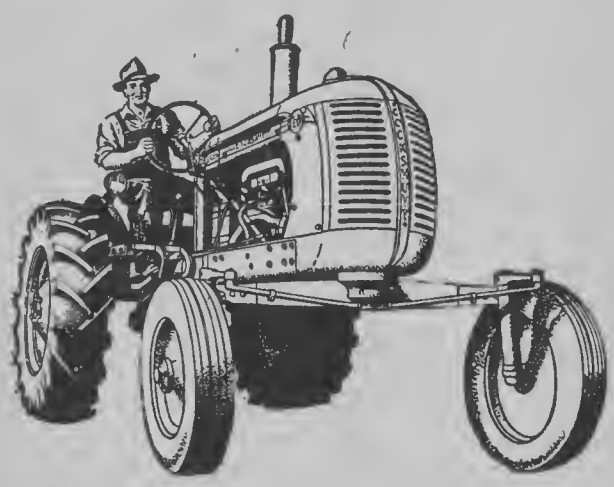

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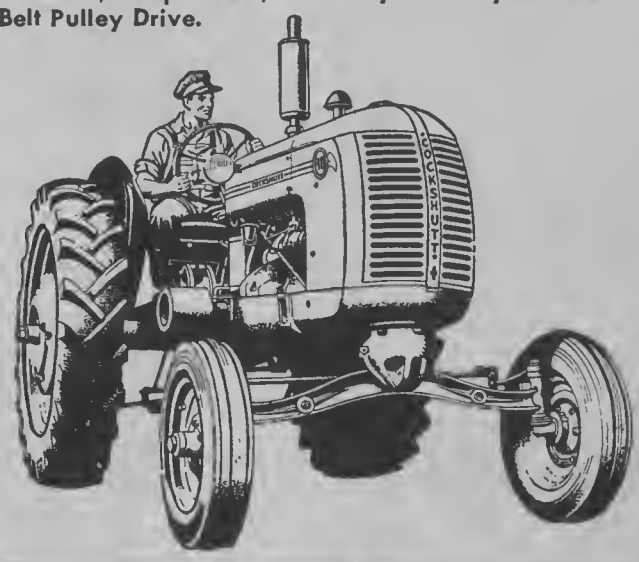

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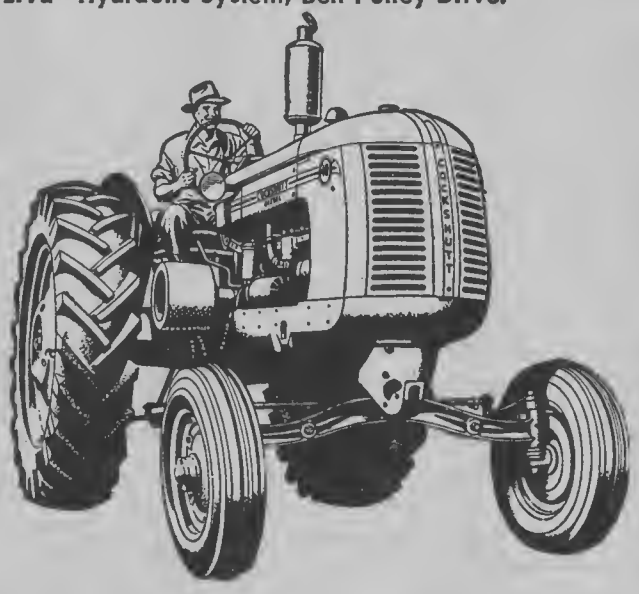
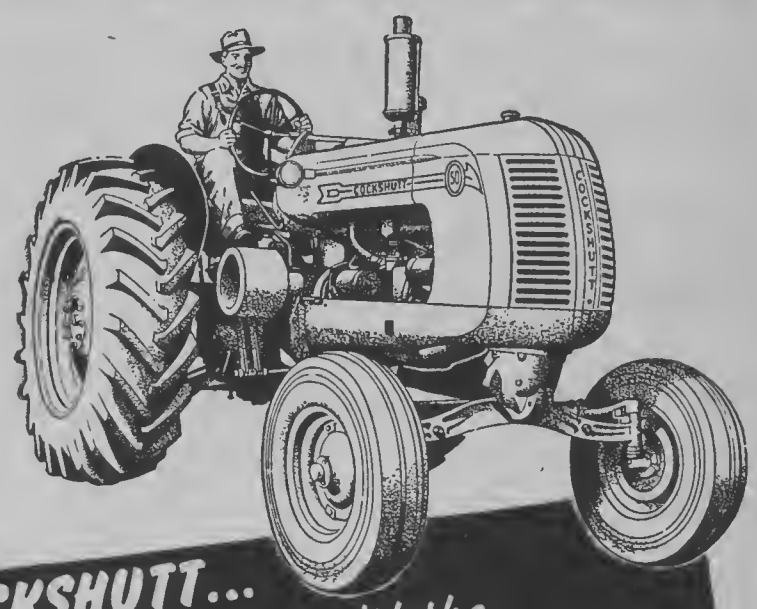
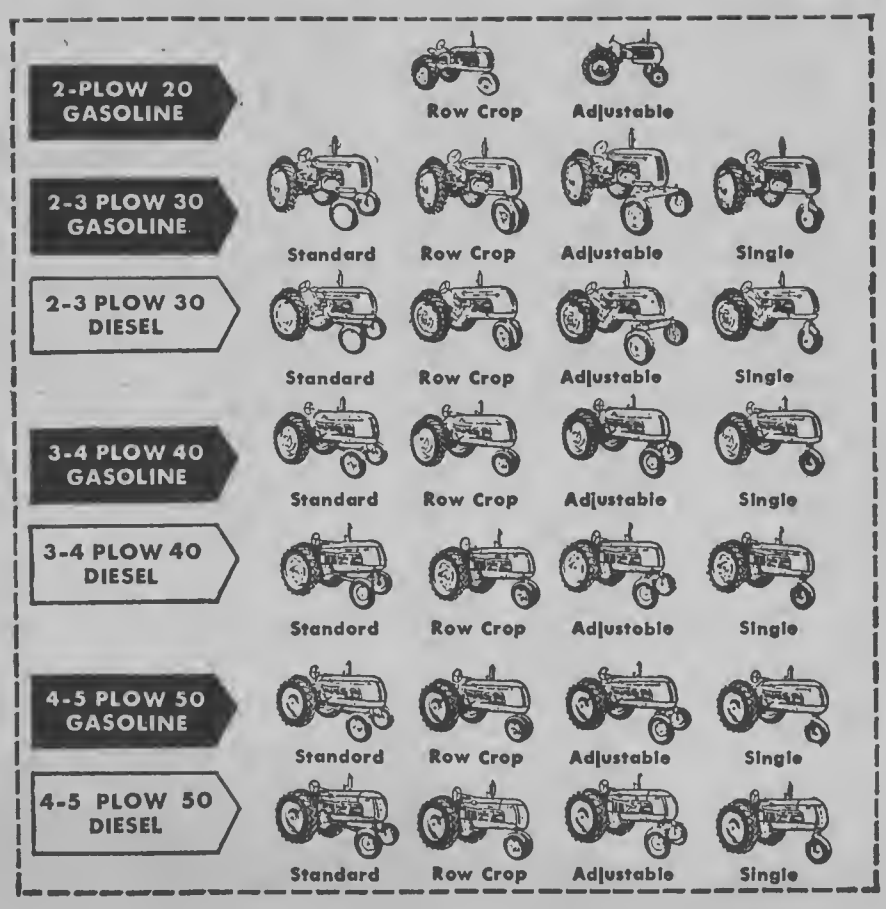


"50" SERIES—4-5 PLOW—273 cu. in., 6-cyl. engine • gasoline or diesel • 6-speed transmission • Self-energizing disc brakes • "LIVE" Power Take-Off and "LIVE" Hydraulic System optional.





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Insult Added To Injury

This incident should be recounted during National Safety Week, but it might get lost in the shuffle, so here it is

by J. RUSSELL CLARKE

ON a cold January day George and I were hauling wheat, loading it into a truck with an engine-driven auger. We were both in the bin lifting a secondary inside door, hinged to the top of the door frame. (This affair is designed to hold back the grain, so the end of the auger can be put into a full bin to start loading.)

So there we stood, in a dramatic Shakespearean attitude, holding it—but like a ham actor and his hands, not knowing what to do with them. I can't, at the moment, remember what we did do with it, because it was just then that I—quite unintentionally, of course—inserted my rubber-booted toe in the business-end of the auger!

I stood half way to my knees in wheat, but I knew where my toes were! Or did I? Were they still in the boot, or half way up the spout? At this point a rather ridiculous, or perhaps hysterical thought passed through my mind. "Look at that little engine turning the auger!" It was puffing and snorting, hardly able to run against the overload created by my foot jammed in the bottom. Ha! It was a fight, man against machine—and the man was going to win(?)!

All this occurred in a flash. The reaction still hadn't set in. I looked at George. He was puffing and snorting, he was overloaded too—because I, in the stress of the moment, had left him stranded alone with the monstrous door overhead. Every split second was adding to my peril. If I shouted my predicament, he would undoubtedly drop his load and rush to shut the engine off so I wouldn't be ground to mincemeat. And if he dropped the door it would mean a secondary assault, this time on my top end, because with my other end already involved I didn't think I was in a position to defend myself.

Mustering my calmest voice, I said something to the effect, would he mind getting out of the bin and shutting off the engine. He looked at me as if he thought this was a stupid time to be shutting off an engine—with so much else on our hands!

The momentary delay, during which his eyes protruded and then receded into their sockets only emphasized the jet-propelled exit he made through the door! I think it was the door! Just in time I realized he had released his potent overhead burden, and by a miracle I managed to grasp it before it overwhelmed me and further jammed me into the machine.

The war dance he did around the engine resembled something between a hula-hula, and a Dagwood morning-bus special. He did everything . . . He pleaded with it . . . He cursed it . . . He caressed it . . . He did everything but give it a major overhaul and grind the valves—he did everything but shut it off! . . . The engine finally died from sheer exhaustion!

So, there I stood majestically in the calm of the southeast bin; like the statue of mighty Atlas with the world in upraised hands, I stood—but my little world was nothing but a grotesque gadget.

Now that the engine had given up the battle, and the gnawing and chewing on my foot had ended, we again turned our attention to the gadget that had been my undoing in the first place. We disposed of it hurriedly by tangling it temporarily in the brace wires, safely (?) overhead. At this point George removed the drive belt from the engine and tried grimly to reverse the auger by hand. But it was thoroughly jammed, and there I was standing on one foot, with a 24-foot auger attached to the other.

If this kept on I could see that I was going to be late for the doctor! By a strange prank of fate I had been hurrying in the first place, because my wife and little boy had an appointment—anybody, of course, anybody in the whole family but me.

Standing with all my weight on my good foot I pulled the other, auger and all, to the surface of the wheat—and there, just as I suspected, was my other foot caught in a "bear trap." "Bring a couple of crowbars," I suggested.

Did you ever try to find two crowbars in the dead of winter at the "north half." Finally George came armed with the truck crank, and a very tired looking piece of scrap iron. I pried with the crank, while he in his enthusiasm twisted his piece into a pretzel. I wiggled and twisted, and finally the boot came out.

Very gingerly I removed the rubber boot. I tipped it up carefully. There was no "bucket of blood." I shook it. Carefully at first, then more vigorously. But not a single toe came out—as a matter of fact nothing came out except a few badly crushed kernels of No. 5 Northern wheat. (This was the year of the Big Freeze!)

Now I turned my attention to the socks. I took off the outer pair. Then I took off the next pair—all these socks were very ragged and bulky, and I still couldn't tell! Then, oh, so gently, I rolled down the final pair, and there were my toes, pink and embarrassed looking—but there they were, and they were attached to me!

I examined them closely. They were numb, but they would move under their own power. They seemed okay, except that they were very accurately engrained with the stitch marks from the wool threads of the stocking. So I put everything back on my foot, and was just getting up to go to work again when the overhead door came crashing down.

When I recovered, George was tenderly lifting me out of a snow bank.

Another miracle had happened. I could stand up. I could even walk a little. The door on its downward swoop had missed my vital organs; it had merely hit me on the head.

When I could talk I said something like this, "George, you haul the wheat. I think I'll take my wife and little boy to the doctor." V

Producing Beef In Australia

Continued from page 11

carcasses which involve much waste in cutting, and produce flat, unattractive roasts. At the best of times the country they come from is subject to fodder shortages in summer; and even in normal seasons their nutrition may be substandard for six months of the year.

MANY ranches are held there on a short-term leasehold basis, which excludes the possibility of ownership. Thus the grazier has little incentive to improve either the carrying capacity of the land, or his methods of stock management. Even if he had, the very size of the holdings would beat him. In the whole of the Northern Territory's half-million square miles there are only 118 productive pastoral leases. One district, about the size of Great Britain, has only 13. Some are held by large overseas interests. According to the report quoted earlier, one such concern holds stations in the Northern Territory totalling around 30,000 square miles, plus another 6,000 square miles in Western Australia, and large areas in Queensland.

Queensland, of course, is the leading cattle state, as will be seen from the following cattle population figures (as of March 31, 1951): New South Wales, 2,466,000; Victoria, 727,000; Queensland, 5,293,000; South Australia, 189,000; Western Australia, 617,000; Tasmania, 115,000; Northern Territory, 1,019,000. Total, 10,426,000.

But most of Queensland has come under the drought, so the industry there, too, has been badly hit. The same goes also for the northwestern districts of New South Wales.

The percentage of cattle in drought areas is as follows: Queensland, 64 per cent; Northern Territory, 93 per cent; Western Australia, 79 per cent. All beef cattle in Australia, 46 per cent.

CATTLE-RAISING in Queensland began 120 years ago, first with the Shorthorn breeds, and later with the Hereford and Aberdeen-Angus. Around 1890 that state had some seven million head of beef cattle, though the only market for them was the tallow trade! The land was good, and new, in those days, with no droughts, no silting-up of streams and waterholes by constant trampling, no land erosion, and no pests. With only a small turn-off, the herds bred up. There was ample feed, too, before overstocking told its sorry tale, and poor grasses grew—or failed to grow—where prime pastures once stood.

In the late nineties, the picture swiftly changed. The first drought struck and with it came the onslaught of two lasting enemies (the buffalo fly and the cattle tick), from eastern Asia. They spelt plain murder for Australia's beef herds. Another drought in 1902 completed the havoc and brought the industry to ruin. From then on it see-sawed giddily between fair prices and slumps. Values generally remained low. They rarely touched $4.50 per 100 lbs., before 1943. In 1922 they were down to $1.00 per hundred for beef that sells today around $14.50.

The cattle tick is a double-barrelled curse in Northern Australia. A blood-sucker, hard to dislodge, it fastens, in numbers, on the hides of animals and soon reduces their vitality. Beasts already weakened by lack of food or water don't take long to pass out. Those that survive the sucking are likely to catch tick fever, so the pest makes sure of a kill. Poison-sprays of arsenic worked for a time. Then the tick developed resistance, so now DDT is used, but the pest still persists. Another plague is the bush fly, which swarms in millions, inland. This type maddens beasts by crawling into the eyes, mouth and nose in search of moisture. It digests away the skin and makes holes in the flesh round those parts. Frantic animals die from exhaustion in their efforts to get rid of the bush fly.

One way now being tried to beat the cattle tick is the use of Zebu-cross sires for breeding. Such strains are not only tick-resistant, but can stand up better than the British breeds to hot and arid conditions. Robert J. Kleberg Jr., president of the King Ranch, Texas, has recently imported several hundred of his famous Santa Gertrudis cattle for this purpose, to stock his 7,500-acre interest in Queensland.

But much more than that will be needed to solve Australia's beef problems, and put sense into the 15-year agreement made last year with Britain. A long-term plan for selling surpluses won't mean much to Australia if there isn't any surplus to sell; nor will it help hungry Britons. Even the latest increase of 20 per cent, giving Australia £122 sterling a ton while Argentina gets £161, won't raise many arguments then!

WHAT the beef country stands most in need of is better management, better transport, and closer settlement. On the first score, the Australians might do worse than to try out in some parts the stall-feeding and other finishing methods used here. That way they would bring their beasts to prime condition much younger. More use of supplementary fodders seems indicated, to tide over pasture deficiencies during bad spells. For the big northern ranchers, better culling and breeding systems as practiced in the southern states, and on smaller holdings "up north," would also pay off.

Best of all would be adequate road and railway services, and the industry is pushing hard for those. Biggest obstacle is the cost, well over $120 million, by one estimate; and it is argued that cattle, unable to support high freights, do not justify such outlay. Droving costs something under half-a-dollar per beast per 100 miles out there; rail freight averages over a dollar for long trips, and road freighting costs twice as much. But more transport may soon follow from the discovery lately of rich minerals — notably uranium — in Northern Australia.

Meanwhile, a very promising experiment with air transport is being tried in one district. At Glenroy, 184 miles from the port of Wyndham, a small killing-station has been established, to serve a radius of about 70 miles. No cattle are drawn from farther afield, as that would defeat the main purpose, which is the elimination of long-distance droving. There the beef is chilled, and loaded into

Bristol freight-planes for removal to a large state meat-works at the port. Each trip takes out six long tons (2,240 lbs.) at an assessed cost of three and one-half pence per lb., or about $16 per carcass. Return loads consist of station stores, fencing, and other developmental materials.

Since this plan commenced four years ago the Glenroy station has consistently increased its output. Numbers of beasts killed were: 1949 – 1,776; 1950 – 3,676; 1951 – 4,080; 1952–5,186. About 40 per cent of these animals were of a type unfit for overland travel, and would, under the old system, never have been brought to market. Of the other 60 per cent, many killed-out at first-grade export quality, with carcasses weighing from 820 to 960 pounds. These fully retained the high-quality, high-priced meats usually "walked off" the animal in the course of droving.

On account of the drought in 1952, it is unlikely that more than a few

"If you weren't the prettiest mother and the best cook in the whole world I'd run away from home right after you give me this licking."

hundred head of cattle from the Glenroy area would have found their way to market by droving. By air transport the output actually showed an increase of 27 per cent over figures for the previous season, compared with a loss of some 40 per cent in the slaughtering tallies at the Wyndham works. The increase is not accountable in any degree by improved methods or better breeding on the properties. Effects of those will not become evident until 1955.

HERE then is one part of Australia where cattle production is being conserved, not wasted. Within a 300-mile radius from Wyndham is an area that normally yields 60,000 to 70,000 cattle annually, brought to market under the old system of overland droving. In that same area are 50 airdromes, already built and available for use. Each provides a direct air highway to all the others.

The use of these airfields, and the construction of others, would service an area of 250,000 square miles. From the tallies notched at Glenroy it is plain that a system of inland killing-stations, established at the airfields, would result in an enormously increased turn-off, and could set a pattern for the better realization of Australia's vast beef potential. V

CANADA PACKERS LIMITED

REPORT TO THE SHAREHOLDERS

The 26th year of Canada Packers closed March 25th, 1953.

Table I reveals a comparison with the previous year, of:—

1. Tonnage (pounds of product sold)
2. Dollar Sales
3. Average price per pound

TABLE I

	Tonnage	Dollar Sales	Average price per lb. of all products
Fiscal 1952	1,708,000,000 lbs.	$390,000,000	22.8c
" 1953	1,859,000,000 lbs.	$386,000,000	20.7c
Decline,— Average price per pound			2.1c
Equivalent to			9%

Canada Packers handles many products, and the tonnage of each in relation to total tonnage varies from year to year. Therefore this comparison of 'averages' is not an exact measure,—nevertheless it is a sufficiently accurate indication,—of the price decline.

Table II sets up for the last three years total Net Profits and, in addition,

1. Net Profit as percentage of Sales
2. Net Profit per 100 lbs. of product sold

TABLE II

	Fiscal 1953	Fiscal 1952	Fiscal 1951
Sales	$386,000,000	$390,000,000	$357,000,000
Tonnage	1,859,000,000 lbs.	1,708,000,000 lbs.	1,694,000,000 lbs.
Net Profit	$4,400,598	$1,964,545	$4,126,013
Net Profit as percentage of sales	1.14%	.50%	1.16%
Net Profit per 100 lbs. of product sold	23.7c	11.5c	24.4c

(On the operations of Canada Packers since the Company was organized in 1927, Net Profits have averaged,—

1.105% of Sales
16.2¢ per 100 lbs. of product sold.)

Table I reveals a decline in the average price of the products sold by the Company of 2.1¢ per lb. Not all prices declined. Indeed, most food prices registered only a slight change, and a few advanced.

The decline in the average was brought about by a severe fall in prices of live stock (and consequently of meats). Meats constitute 60 per cent of the dollar sales of Canada Packers. Within the year under review prices of all meats declined an average of 22%. The most drastic decline was in cattle and consequently beef, prices.

A decline was not unexpected. It had been predicted for more than two years. Cattle prices had advanced to a much higher percentage of the pre-war level than was the case in respect of any other food.

During the war period prices were controlled. Meats were rationed and ceiling prices were maintained. All Canada's surplus meats were shipped to the U.K. An embargo was imposed against shipments of live stock or meats to United States. These controls continued until 1947.

Rationing was discontinued ..... March 26, 1947
Ceilings were abolished ..... Oct. 22, 1947.
Embargo against shipments to U.S. of all meats other than pork products was lifted ..... Aug. 16, 1948.

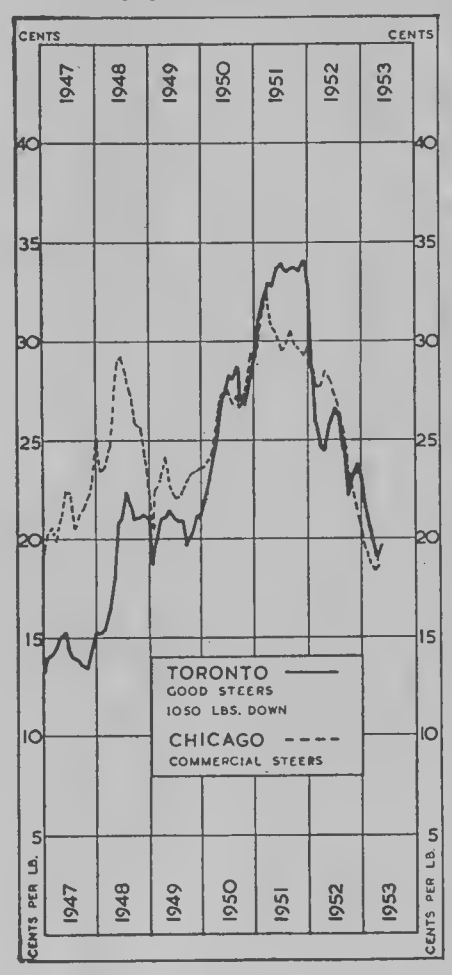
From October 1947,—(when ceilings were abolished),—cattle prices advanced, with only minor recessions, until January 1952,—a period of 4¼ years.

In October 1947, the price of Good Steers at Toronto was 13½¢ per lb.
At January 1st, 1952, they had risen to 34¢,—an increase of 152%
See Graph No. 1 (Solid Line)

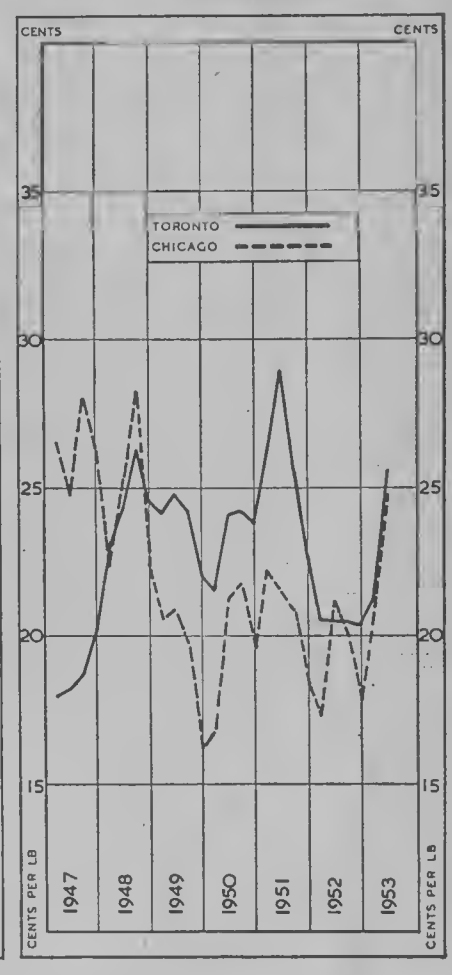
During the same period, prices of **all** foods advanced ..... 46%.

It was clear that so wide a disparity in the scale of advance as that between cattle on the one hand, and general food prices on the other, could not continue indefinitely.

GRAPH No. 1
CATTLE PRICES
TORONTO AND CHICAGO



GRAPH No. 2
LIVE HOG PRICES
TORONTO AND CHICAGO
TOP GRADES



The decline set in during January 1952. Within a period of three months (January 1 to March 30, 1952) the price of Good Steers at Toronto dropped from 34¢ to 24½¢ per pound.

The chief immediate cause of this violent drop was the announcement of foot and mouth disease, (February 25, 1952) and the consequent embargo by United States against all Canadian live stock and meats. The story of the outbreak, and of the steps taken by the Canadian Government to cope with the disaster, was told at some length in last year's Annual Report.

During the time the embargo lasted, the Canadian Government saved live stock prices from further collapse by announcing floor prices for cattle and hogs, and undertaking to purchase at those prices the surplus over and above domestic requirements.

The disposal of the surplus so acquired involved the Government in a heavy loss; nevertheless this loss was only a fraction of that which would have ensued to live stock producers if the Government support had not been forthcoming.

It is now clear that while the U.S. embargo was the immediate cause of the violent break in cattle prices, an equal break would not, in any case, have been long delayed. For, during the period of the embargo, (February 25, 1952 to March 2, 1953) a drastic decline in cattle prices was in progress in United States. The dotted line in Graph No. 1 depicts the course of American cattle prices.

HOG PRICES

During the period 1947 to 1953 the course of Hog prices has been subject to quite different influences from those affecting Cattle.

Graph No. 2 depicts Hog prices in Canada and United States from January 1947 to June 1953.

The solid line represents Canadian prices, and the dotted line, American. In United States Hogs are bought on live weight, in Canada on dressed weight. In the graph, therefore, Canadian prices are converted from dressed to live weight basis,—assuming a yield of 75%.

Up to and including 1950, substantial quantities of Bacon and Hams were shipped to the United Kingdom. These shipments were under contracts made between Canada Department of Agriculture and the

Farming Is More Efficient

Increased farming efficiency is due more to other factors than to mechanization

A LITTLE more than half of the increased efficiency in farming during the last 40 years was due to factors other than mechanization.

Primarily because the United States has about 12 times the population of Canada, is many times wealthier and produces nearly one-half of the total industrial output of the world, her governmental services are much greater and more varied, and detailed statistics with regard to her agriculture are much more abundant than Canada can afford. Nevertheless, since the two countries are similar in so many ways, U.S. figures point in the same direction as would those of Canada, if calculated.

Take, for example, measurements of the increase in agricultural efficiency over long periods. A publication of the Food and Agriculture Organization, prepared in the United States, indicates that in the period 1909-13, the United States had annual employment for 12.1 million agricultural workers, when her population was perhaps 30 million less than at present. In 1945, with a much larger population, U.S. agriculture employed 9.8 million agricultural workers on an annual basis. Curiously enough, they worked longer hours than in 1909-13, the increase having been from 1,840 man-hours per worker per year, to 2,078.

During this period, taking the years 1917-21 as 100, the gross agricultural production per worker in 1909-13 averaged 88, and had increased to 152, or nearly 75 per cent, by 1945.

The interesting question which these figures suggest is the manner in which this increase was brought about. Most people, having in mind the tremendous development of farm mechanization in recent years, would automatically credit this factor with having had the most important influence. It was the most important factor, according to the calculations of the USDA, which credited it with exerting 47 per cent of the total effect. Nevertheless, other factors combined to account for 53 per cent. In other words, where increased mechanization and reduced horse and mule populations accounted for a saving of 4.2 billion man-hours in 1944, these other factors saved 4.8 billion man-hours. Included in the latter figure were 1.7 billion man-hours saved as a result of increased yields of crops and livestock; 1.85 billion man-hours saved because of increased size of farms, reduced overhead labor and better use of work animals; 1.85 billion man-hours saved through the use of simplified methods and the hiring of equipment and so on. Offsetting all these factors was an increase, estimated at 600 million man-hours, as a result of changes to types of farming which required more intensive labor.

What all this amounts to is that on the average, between 1909-13 and 1944, there was a gain equal to more than 900 hours per worker per annum, or roughly three hours a day.

If we take the 4.2 billion man-hours saved annually by increased mechanization, it is estimated that 34 per cent of this time has been saved by farm automobiles and trucks, about 22 per cent by tractor-operated machinery, and 21 per cent saved in the maintenance of tractors, trucks and automobiles, as compared with the work involved in handling horses and mules. It was also calculated that 17 per cent of the time saved through mechanization was from the effect of better small tools, horse-drawn equipment, gates, fencing, storage, and so on, and that about five per cent was due to milking machines. Thus, it was concluded that over the 25-year period between 1920 and 1945, "no more than one-quarter of the gross saving in human labor could be attributed strictly to the introduction of more efficient farm machinery. The remaining three-quarters resulted from better management of farms, other technological advances and more efficient farm transport."

It seems clearly evident from the trend of these figures that for farm mechanization to be productive of efficiency, it is necessary also to fully cultivate good farm management, the wise use of land, economy of labor in other directions, and the time saved by using machinery instead of horses. V

May Prevent Bloat By Lick Block

AN American company, the Union Starch and Refining Company, Columbus, Indiana, has recently marketed a carbohydrate-base lick block to be set out on legume pasture with the cattle, so they can get their bloat preventive in the same way they get salt.

It is reported in Capper's Farmer that the block contains carbohydrates in the form of crude corn dextrose and cane molasses. These are fortified with phosphate, calcium, magnesium and trace elements. There is no evidence that the effectiveness of this anti-bloat device has been tested at any experimental station, but it is reported that it has been under test on an Indiana farm since the summer of 1952, and that no bloat occurred in the dairy herd there when the bloat block was available. However, when the herd ran out of the material one cow bloated and died.

Theory of the block is that it allows cattle to maintain a proper balance between proteins and carbohydrates in their rumen. During a pasture season, it is said that individual animals might consume up to 80 pounds a piece. V

British Ministry of Food. To secure the product for which Canada was committed, the embargo was continued which had been imposed throughout the war, against shipments of Hog product to the United States.

Space does not permit a detailed review of price fluctuations from January 1947 to December 1950. It is sufficient to say that during this entire period, requirements for U.K. Contracts plus for domestic consumption exceeded supplies, resulting in a constant upward pressure on prices.

The last contract with U.K. was completed December 1950. It was not renewed for two reasons:—

(1) The U.K. was short of dollars.

(2) Canada was short of Hogs.

With the expiry of the U.K. Contract, the embargo against movement of Hog product to United States was lifted,—date January 1st, 1951. Since that date, limited quantities of Pork Meats (chiefly specialties such as Pork Loins, Tinned Hams, Canadian Backs) have gone forward to United States. Quantities have not been large. Nevertheless, these are all high priced products, and the stimulation to Canadian Hog prices has been out of proportion to the volume of the shipments.

Inspected slaughterings for the five years 1947 to 1951 inclusive were remarkably uniform. The average was approximately 4,500,000 Hogs. The steadily advancing prices of these years led to a sharp increase in production in 1952. Unfortunately, Foot and Mouth disease intervened (February 25th, 1952).

As already explained, the Government established a floor price,—26¢ per pound dressed,—and that price ruled without variation until the end of the year.

On September 25th, 1952, the Government announced that the support price after January 1, 1953, would be 23¢,—a reduction of 3¢ per lb. This led to unprecedented deliveries of hogs during December 1952. Both producers and packers expected that the new floor price would obtain indefinitely after January 1, 1953, just as the previous floor price had obtained from February to December 1952.

What happened took everyone by surprise. Instead of a drop from 26¢ to 23¢ per lb., the market advanced (with short recessions) to a high of 36¢ per lb. An important factor in this advance was the strong American Hog market. The chief cause, however, was the drastic decline in Hog marketings.

Within the four months, March to June 1953, the situation was:

(1) That Canada was free to export either beef or pork product to U.S., but no beef and a very limited quantity of pork product have gone forward. The reason was that both cattle and hog prices were higher in Canada than in the U.S., which means that prices in Canada were the highest in the world.

(2) That these facts suggest a profound change is in progress in the live stock situation of Canada. Domestic consumption is advancing rapidly, due to:—

(a) increasing population.

(b) increasing purchasing power per capita.

It may be that the time is not far distant when over quite long periods Canada will herself consume all the meats being produced.

He would have been a bold person who would have suggested such a possibility ten, or even five, years ago.

Nevertheless, the fact remains that Canada still does produce some surplus, both of cattle and of hogs, and during the season when marketings exceed domestic demand, the surplus must move to United States.

In respect of cattle, the period of surplus must now be close at hand. The movement of cattle from Western Canada to the East and South usually sets in during July. From then until the end of November, cattle prices in Canada will be roughly those for corresponding grades in U.S., less freight and duty.

In respect of hogs, the surplus, if any, may not be felt until September or October.

J. S. McLEAN,
President.

Toronto, June 30th, 1953.

Extra copies of this report are available and, so long as they last, will be mailed to anyone requesting them. Address requests to Canada Packers Limited, Toronto 9.

Dinosaur River

Continued from page 10

canyons are full of brown bones of prehistoric monsters. Hundreds of complete skeletons have been unearthed there, while literally thousands of bone fragments have been gleaned from the surface by curious farmers and tourists.

The name "dinosaur" is derived from a Greek word meaning "terrible lizard," and some of the Red Deer specimens qualify for that description. There was Gorgosaurus, for example, a flesh-eating dinosaur of the biped sort, who charged swiftly through the swamplands, in murderous pursuit of large and small herbivorous dinosaurs. Gorgosaurus measured about 40 feet long, with the savage head and its mouthful of ferocious teeth carried 20 feet up from the ground. You can get the screaming meemies just looking at reconstructed pictures of this tyrant, who could kill 80-foot-long plant-eating dinosaurs that weighed upwards of 65 tons.

There were many bird-mimic forms in the Red Deer valley, 10 to 15 feet in length and excellent runners in the same tradition of today's ostriches. They relied on getaway dash and sustained speed to elude Old Gorgo. Fifty different kinds of the prehistoric reptiles have been found in the badlands near the Steveville part of our river, with the duck-billed dinosaurs the most plentiful variety. Sweet looking nightmares they were, too, there being more than a dozen types ranging from 12 to 40 feet in length, sporting webbed feet and thin skins; and with no armored defence nor fighting teeth, they took to the water to avoid Gorgo and his carnivorous relations. Red Deer Badlands even produced a few dinosaurs you wouldn't mind having as pets, yard-long little bipeds that hot-footed through the country over a hundred million years ago, when this area was part of an inland sea dotted with swampy islands on which grew huge trees and giant rushes, long since extinct.

Many of the Red Deer dinosaurs have been reproduced in concrete to add interest to the zoological gardens at Calgary's famed St. George's Island. A feature of the display there is the 107-foot-long Brontosaurus or "Thunder Lizard," whose immense paddy-paws once shook the earth with a thundering shudder. Tom Baines, genial curator of the zoo, had a difficult time putting off an insistent businessman during the building of the giant replica of Brontosaurus: the enterprising businessman wanted to set up a hot-dog stand in the hollow belly of the dinosaur!

PAST the dinosaur beds, there is a slower stretch of the river flowing through semi-arid country, where cacti bloom and wary pronghorn antelope still roam in wild herds. Just beyond the eastern boundary of Alberta, the Red Deer River adds its waters to the South Saskatchewan River system, that eventually drains into the salty brine of Hudson Bay.

The old fur-brigades paddled their canoes up our stream, for on the sandstone Hogsback in the Red Deer Canyon you could once trace out names and dates of those bygone times. And where the placid brown waters of the Blindman River join the Big Red, an early missionary found the river a flooded barrier to his progress. The resourceful cleric shot a large buffalo bull in the head, skinned out the hide carefully without puncturing it, stretched the green skin over an oval framework made of willow wands, then paddled himself in the improvised coracle across the swirling currents to reach the far shore and go on with his ecclesiastical journeys. Another memento of historic interest can be seen not far from the tiny settlement of Rumsey, where you may study primitive drawings on a river hillside. Indians lined out these crude human and animal figures with large rocks. Nearby there is a circular stone pile on a prominent knoll, thought to be the last resting place of an important Indian chief.

"Maskepetoon was converted to Christianity in a camp situated between Burnt Lake and the Red Deer River," wrote the Rev. John McDougall, pioneer missionary of the territory.

Maskepetoon was the great peace-chief of the Cree tribe. While still a pagan, back around 1830, he changed from a fearless and renowned warrior chief to become a mighty worker for peace among the western redmen. Once, the bloodthirsty Blackfeet accepted a temporary truce and were admitted to a Cree camp presided over by Maskepetoon. It was then it was revealed that the man who had murdered Maskepetoon's father was a member of the Blackfeet band. Both sides thought a bloody battle would take place. Instead, Maskepetoon sent for the elderly Blackfeet warrior and gave him his best horse, dressed him in his finest white buckskin, and said:

"Once I would have gloried in taking your life and drinking your blood to avenge my father's death. But now I believe in peace, so you must ride my horse, wear my clothes, eat my food, because from now on you must be as a father to me in place of the man you killed!"

WHEN the Sanford Fleming Expedition that was charting the route of the first Trans-Canada railway line reached old Fort Edmonton in 1872, they found that tiny settlement seething with excitement over the rumors of rich gold deposits in the gravels of the Red Deer River a hundred miles to the south, and a dozen men left the fort to seek their fortunes. The gold is still here. It is glacial deposit gold so finely pulverized and widely scattered that it is difficult to accumulate in paying quantities.

Farmers came in 1885 and found a different wealth in the deep black loams of the parkland belt, while cattle and horse ranchers settled the prairie region near the badlands, where their stock fattened on the native grass called prairie wool. The farmers are still here and so are the cattle ranchers, with lumbering the main industry in the upper stretches, amid the green foothills.

This stream is the safest canoe river in Alberta between Sundre town and Drumheller; over 200 miles of rapid waters, with scenic changes at every bend. Trout and Rocky Mountain whitefish dimple the pools near Sundre; at Drumheller, the pike grow to a goodly size and the silvery-scaled goldeyes provide sporty fun for bait and fly fishermen. Thirty years ago a 70-pound sturgeon was caught in this

amazing river—a fishy transient strayed upstream from Lake Winnipeg.

Wildlife along its varied course is always abundant and interesting, ranging from the long-snouted moose, stately wapiti, mule and white-tailed deer, down to diminutive water-shrews and Zapus, the jumping mouse that can clear six feet at a single bound. On every canoe ride, or walk, along its banks you can be sure of seeing beavers or evidence of their work, and you will often sight the dark form of a mink foraging along the shoreline. The wild screams of Osprey and the broad-winged Ferruginous hawks sound from the skies overhead. In the mountain part, you may watch the Dipper, or Water-Ouzel, fly through the sprayed curtains of waterfalls. Canada geese nest on its islands, and whistling swans pause on the stream during spring and autumn migrations to and from their Arctic homeland, with now and then a white pelican also in evidence. Throughout the parkland belt of the river the peregrine falcons thrive: the same species used by Chinese emporers 5,000 years ago for sport. Experts claim that the power dive of the peregrine exceeds a speed of 150 miles per hour, a thrilling performance to witness.

The Red Deer is a musical river. Sometimes it thunders a stormy symphony at floodtime, while at summer's end it murmurs a slow lullaby during the period when its banks are gold, scarlet, and purple with the Manitou's cloak of autumn, then its melody is muffled under ice and snow throughout the winter. We who live beside it love best its blue water sparkle during June, when its lilting song belies the fact that this beautiful stream is world famous as the home river of the Terrible Lizards. V

Replacing the Range Bands

Continued from page 15

cases of vitamin A deficiency in the spring and finally blamed it on a scarcity of sunshine at hay-curing time a year ago. Vitamin E deficiency or stiff lamb disease had bothered some shepherds too, and they were told that both deficiencies might have been prevented by feeding ewes dry vitamin A and E two or three weeks before lambing.

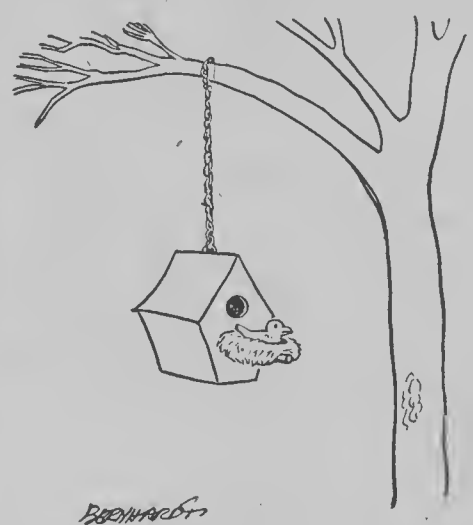
They talked about pastures, and about the future for sheep, and observed that, at long last, the province's sheep population had taken a slight turn upward. It was not much, but from June, 1951, to June, 1952, estimates showed an increase from 330,500 sheep and lambs, to 387,000.

With fewer range bands but more sheep and more farmers looking after them, Alberta will make sure that newcomers to this profitable industry have a chance to learn the right way to look after their flocks. V

Man's War Against Insects

A new stage in the struggle between man and the insects

EVER since man began to cultivate plants and animals for his food supply, instead of living a wandering or nomadic life, he has been engaged in a constant struggle with insects. These tiny members of the animal kingdom, of which there are many thousands of species, and often many varieties within a single species, are everywhere. The life of a single individual of most species of insects is very short, some of them living as adults for only a few hours. Some pass through several stages in their life history. Their destructive period varies. With some insects it is the larva which does the damage, and in others, the adult. Entomologists, who



specialize in the study of insect life, must first learn the detailed life history of an insect before they can determine how it can be controlled.

Probably the first method of controlling insects on cultivated plants was the laborious one of picking them off individually and killing them. No doubt many readers of The Country Guide can remember the old-fashioned method of killing the larvae, or slugs, of potato beetles, by putting some coal oil in a tin pail and walking along the rows with the pail in one hand and a small stick in the other, jarring the slugs off into the coal oil, where they perished.

Because insects are voracious and do a great deal of damage in proportion to their size, one of the earliest methods was to apply the idea that if a substance, such as paris green, was poisonous to human beings, it would probably kill insects as well; and paris green, therefore, was probably the first of the so-called stomach poisons used for the protection of crops. As entomologists came to know more about methods of control and particularly about the damage which might occur to the plants through the use of certain poisons as a result of burning, efforts were made to find others; and so we have used arsenic in several forms, of which arsenate of lead is one. It was discovered also that some plants, such as the tobacco plant, carry their own insect poison. In this case, it is nicotine. Nicotine was therefore added to our list of stomach poisons.

ONLY a few years ago an entirely new group of chemicals was discovered, and these were the synthetic organic chemicals, such as DDT,

chlordane, parathion, and many others. With the discovery of these insecticides, insect control became simpler, more economical and more effective than it ever had been in the history of agriculture.

There was also a special group of insects which could not be killed with any form of stomach poison. They do not eat the leaves as other insects do, but pierce the outer surfaces and suck the plant juices. They are, therefore, not killed by a poison which has to be consumed in the ordinary manner, to be fatal. In the past they have had to be killed with what are called contact poisons.

In recent years some of the organic chemicals such as DDT, have become less effective than at first. Although these chemicals were more poisonous than those previously used, insects soon began to develop a resistance to them. Research workers have estimated that it takes six to eight times as much DDT to kill resistant strains of fruit flies, as it takes to kill strains of such flies which have never been exposed to this insecticide. Curiously enough, lice have recently been found in Korea which were resistant to DDT. Chemists and biologists are now studying the manner in which resistance of insects to insecticides is inherited.

MEANWHILE, a new type of insecticide has made its appearance, which promises to be of untold value in many ways. These new products are called systemic insecticides; and strangely enough, though they are not very poisonous themselves, within the plant they become powerful insect-killing substances.

Systemic insecticides are carried by the plant juices, so that if applied on any part of a plant, an insect feeding on any other part of the plant is likely to be killed. This means that failure to apply these insecticides to all parts of a plant is not necessarily as important as with other insecticides.

Research workers in many countries have been studying this new type of insect killer, but nobody, until recently, has known what the insect-killing substance is that is manufactured inside the plants from certain systemic insecticides. The researchers have generally worked with a chemical called Schradan, until recently called OMPA, because its real chemical name is Octamethylpyrophosphoramide. Now, however, chemists have found that it is in reality the first member of a new chemical family that is the insect-killing substance of Schradan, and they have also found out how to analyze plant tissues for it. This in itself is very important, because unless a poison can be analyzed and separated from a product which is later used as food, it cannot be permitted in commercial use, for fear it will injure those who eat the food. If, on the other hand, food can be analyzed and the chemical segregated, health officials can determine whether it is present in sufficient amounts to be harmful before it is allowed for sale.

The research done has led to the discovery that a simple way of analyzing plant tissues for the active insect killer is to grind up tissues of the plants and dissolve them in chloroform. Then, when treated with acid, the insect-killing substance releases formaldehyde, which is not normally found in plants. The amount of formaldehyde, therefore, would indicate the amount of the substance in the plant tissue and be a measure of its danger to human beings.

SYSTEMIC insecticides have many advantages which other insecticides have not possessed. They can be used to treat seeds. This would be easier than field spraying, and because of their nature the plants growing from seeds that have been treated would be able to resist insect attacks. They can, of course, be applied after planting as well. They are also soluble in almost any liquid, which is of very great advantage. Many of the other insecticides have been very dangerous because a suitable solvent or carrier has been difficult to discover. They can also be used along with nearly all other insecticides, without cutting down their effectiveness. One of the very great advantages of these new insecticides is that Schradan kills only the insects which feed upon the plant. It does not kill the natural enemies of these insects, as do most other insecticides. It often happens that in order to get rid of a dangerous pest all insects within the area are killed as well.

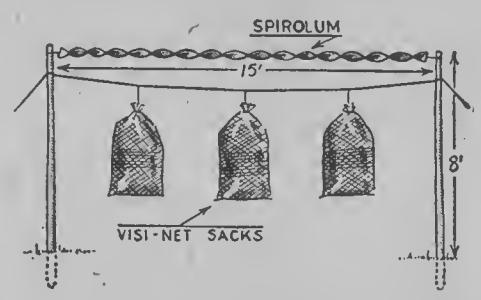
Schradan can also be stored a long time, because it does not become poisonous until it is in the plant, and there it has a long-lasting effect. Researchers have also found that animals can produce the same toxic substance from Schradan. Thus, great care must be used before recommending it. It also carries with it the possibility that such insects as warbles in cattle, for example, may eventually be controlled by systemic insecticides, perhaps fed to the animals after sufficient research has been made to determine whether such a process would be safe. V

Crop Damage by Ducks

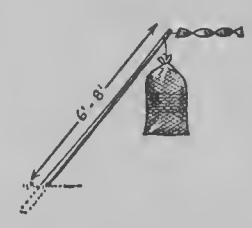
Continued from page 7

to the end, increases the effectiveness of the device. A larger device with several bags has also proved useful.

No strict pattern has been established for the distribution of scaring devices in the fields. In one 50-acre field, three scaring devices stopped ducks from feeding. The devices were put out the same day the ducks began to use the field, and were placed where the ducks had been feeding. Fourteen devices on 120 acres, where ducks had been feeding for five days, were effective. At the same time, eight devices on 60 acres, where ducks had established a feeding pattern, did not completely dissuade the birds, and



A large and easily constructed duck scaring device.



Left: The smaller, commonly used device.

more devices, plus gunfire, had to be employed to keep them away.

Gunfire, as a means of protecting crops, appears to be misunderstood and abused. Killing birds does not increase the crop-saving value of the shooting. At Delta only skeet loads and blanks were used, and it was found that ducks were scared at up to half a mile. The recommended procedure is to patrol early in the morning, and again in the evening, near the scaring devices. Random shots as the birds cross the border of the field will frighten them away. On one field, when ducks had established a feeding habit, two nights and two mornings of shooting were necessary to frighten them away completely. On another field at the edge of the marsh, ducks had to be frightened by gunfire on three separate occasions between the first scare and harvest.

An excellent example is available of the relative value for crop protection, of a program that is carefully planned to protect the crop, and one that may protect the crop, but whose chief aim is to give some "sportsmen" a preseason shoot.

In one instance crops were being damaged, and the owner phoned the Delta Station for help: she also phoned some hunters. The men from Delta put up scaring devices in the early afternoon and returned in the late afternoon with skeet load shells and shotguns. They found a hunter's car concealed in bushes in the field, the scaring devices were mutilated to make them less conspicuous, and the hunters had built blinds out of swathed grain. They were killing ducks that came low over the blinds, and allowing others to settle on remote parts of the field. The men from the Station repaired the scaring devices, exposed themselves on the margin of the field, and banged away with their light loads, at all approaching birds. No birds were killed, none alighted, and none came back the next day.

In another case the owner could not get the ducks to stay off a half-section field. Scaring devices and limited shooting on the field margins scared the birds off, so that they no longer molested the crop.

Permitting ducks to feed on harvested stubble is fundamental to any depredation control program. Shooting over threshed fields merely serves to drive the hungry ducks onto valuable swaths. If they are permitted to feed on harvested fields without being molested, great concentrations will often be built up and nearby crops may remain untouched.

Several other programs have been tried. A siren was used in the vicinity of Kindersley, Saskatchewan, last year, and a measure of success was gained. The weakness here is the cost of the equipment. Extensive use has been made of permits to shoot over fields, but, as already indicated, such a program is susceptible to abuse, and is often ineffective. This year the Saskatchewan government is insuring crops against wildlife damage. This, of course, is a different thing entirely from the prevention of duck damage, but it can play a part in reducing losses to individual farmers.

Work done at Delta could be of great value to agencies insuring crops against duck damage. Observations at the Station have established that ducks feed in definite flight lines, and regularly follow the same routes. Such a pattern of feeding may continue year after year. Detailed knowledge of the feeding pattern could be an important aid in the determination of fair insurance premiums.

The suggestion has been frequently made that seasons should be opened as soon as damage begins. Such a plan has serious weaknesses. Perhaps the most serious is that intensive, early shooting kills most of the juvenile ducks before they have learned to fly strongly. Ducks raised in a marsh return to the same area to nest; and if all the young are killed for several years, the marsh is likely to be depopulated. This might be all right with non-hunting crop owners, but it is uneconomic management of a valuable natural resource.

The scientists at the Delta Waterfowl Research Station are quick to point out that their research program on duck damage to crops has been carried out only in the Portage area. Their work was done in a year when the duck threat was not severe. However it does appear that preliminary patrol to determine the presence of ducks, followed by the building of scaring devices from material stockpiled for the purpose, and, when necessary, supplementing the devices with gunfire (using blanks or skeet loads), will effectively discourage ducks from feeding on unharvested crops.

With research progressing, crop owners may soon find that it is less difficult to drive thousands of ducks out of their fields, than it is to keep the next door neighbor's fence hard cows in their own pastures. V

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When Time-Saving Means Profit

Time-saving can only be profitable when the time saved means money made

THERE are many ways of saving time on the farm, and where this means saving time which can be used to great advantage in other work, the financial result is usually profitable to the farmer. In many cases, however, the time saved, as in livestock production, is often in small units per day.

Take for example, the use of a barn cleaner. Studies on actual farms have indicated that it takes approximately 70 seconds per day, per cow, to clean the stable by loading the manure into a wheelbarrow. Where a manure spreader is pulled down the center alley of the cow stable, with only one man loading, the time taken is about one second per cow per day more than by the use of a wheelbarrow. Where two men load the spreader the time taken is 55 seconds, or one second less than if a litter carrier is used.

Where a semi-automatic barn cleaner is installed, by which a scoop pulls the manure along the gutter to an elevator, which raises it into the spreader, the time taken is 28 seconds per cow per day. In addition, of course, the work is easier, the operator merely walking and guiding the scoop.

A fully automatic barn cleaner takes about 13 seconds per cow per day. Here, the only work needed is to scrape the center alleys and stalls.

Hauling a load of manure approximately a quarter-mile from the barn to the field and back takes about 12 minutes, and unloading onto the field another 11 minutes.

Time saved in these operations is expressed in seconds per cow, per day, and the daily saving, even in minutes, is small. For a 20-cow herd the daily saving between 71 seconds per cow per day and 13 seconds per cow per day would be approximately 19 minutes. Nevertheless, over a period of a year such a saving amounts to 118 hours, or more than 14 8-hour days. If hired help were employed at $100 per month and board, this would probably mean a saving of $70, in terms of time fully utilized. If a farmer were alone on a farm it could mean much in money-making time, in addition to the easier work involved. Actually, however, the dollars saved would depend on the use made of the extra 19 minutes each day, which is the point involved in all such labor-saving equipment. V

Draft Power In Agriculture

By far the greater part of the world's farming is still done with draft animals

CANADIAN farmers are well aware of the rapid increase in tractor power used in agriculture during recent years. World figures for the total amount of draft power used in farming present a quite different picture.

Figures prepared for FAO include the year 1948-49, and make comparisons between that year and the year 1930. It may surprise many readers to learn that more than 85 per cent of the total draft power used in farming operations in all countries was still provided in 1948-49, by work animals. This is explained by the fact that although the Far East (southeastern Asia, exclusive of U.S.S.R.) contains 22.9 per cent of the world's arable land, it had only 0.2 per cent of the world's tractors. The other extreme is found in North America where with 17.2 per cent of the world's arable land, there were 70.8 per cent of the world's tractors, in 1948-49. Next most intensive tractor area was Europe, including the United Kingdom, where with 12.2 per cent of the total arable land, there was 15 per cent of the world's tractors. Following Europe comes Russia, with 18.4 per cent of the arable land and 9.6 per cent of the world's tractors. Oceania, which includes Australia, New Zealand and islands in the southwest and central Pacific, has a higher intensity of tractors than the U.S.S.R., but while it had 1.9 per cent of the total tractor numbers, it had only 1.5 per cent of the world's arable land. Africa, with 12.4 per cent of all arable land, had only 1 per cent of the total tractors. Latin America with 9.3 per cent of the arable land had only 1.3 per cent of the total tractors.

World agriculture at that time required 230.6 million units of draft power, the unit being one horse or mule equalling one, a tractor, six, a water buffalo, 0.9, and draft cattle, 0.5. In order of importance, the Far East contained 90.1 per cent of all draft power units; Latin America (Central and South America and the Caribbean area), 45.6 per cent; North America (including Canada, United States, Alaska, and the Hawaiian Islands), 29.4 per cent; Europe, including the United Kingdom, 23.1 per cent; Africa, 17.4 per cent; the U.S.S.R., 14.1 per cent; the Near East, 9.3 per cent, and Oceania, 1.6 per cent.

In the world total, tractor power in 1948-49 accounted for 31.4 million draft power units, as compared with 7.7 million in 1930. V

The men and women who take nothing from letters and books are choosing to live as though mankind did actually wallow in the awful darkness of that state from which writing and books have rescued us . . . How can men or women be content with so little, when they might have so much.—*J. N. Larned.*

Philosophy of Conservation

The farmer's responsibility is primary, but the public must take a long view

NO problem is more basic to the long-time success of agriculture than the conservation of farming resources, particularly the soil in which plants grow, and the water without which plant foods cannot be released from the soil. Here are a few pertinent paragraphs from an address delivered by Dr. Charles E. Kellogg, chief, Soil Survey Division, Soil Conservation Service, U.S. Dept. of Agriculture. Dr. Kellogg is a world-renowned figure who speaks on soil problems with the voice of authority. This, in part, is what he said.

"In its beginning, the soil conservation program emphasized erosion control, but as we began to study the soil erosion problem we learned that declining soil fertility, unstable prices, restrictive credit and all sorts of physical, biological and economic factors were involved. As farmers undertook to control erosion, it became obvious that the practices they used had to be productive, as well as conserving. We cannot think of soil conservation merely in terms of terracing, contouring and gully-plugging.

"Thus, our concept of soil conservation has been broadened, until it implies use and improvement, now and for the future — using soil and improving it at the same time. We are not seeking some mythical 'balance of nature,' but a cultural balance, using all the tools of science and engineering for efficient production on a sustained basis. Despite the solid progress of recent years, we are not yet holding our own.

"We agree that the individual land user should and does have the primary responsibility for soil conservation. If the farmer can follow a system of soil use that gives him maximum returns over a period of years, and that also maintains or improves his resource base, the problem is relatively simple. Yet, if he takes a short view—and he may be forced to do so—there may be conflicts between his immediate economic interests and the maintenance and improvement of soil productivity for future years.

"Our country's security demands that the public take a longer view than that normally expected of an individual in developing his conservation plan. Our success with the soil conservation job depends on public understanding of the problem. It is up to the scientists and the land users to develop the facts, to explain to the public generally, and to co-operate with the politicians in the broad area of common concern for the long-time welfare of our country and its people." V

"I know what Pop says to make him go, but if I say it I'll get a whippin'."

Honeybees Best Pollinators

Honeybees do over four-fifths of all the pollinating done by insects, but they must be given conditions under which they can work well

by **D. R. ROBERTSON**

ONE of the chief concerns amongst seed producers today is the lack of pollinators and pollination. With the extensive clearing of large acreages of bush and the widespread use of chemicals, many of our insect pollinators have been destroyed. Few people realize the importance of this problem and still fewer understand that our diet will eventually be much restricted, or we may even go hungry, because our only crops will be those not needing the service of pollinators. Also, the struggle for conservation in such things as water and soil may be attributed in many ways to the lack of pollinators and pollination. To stabilize our livelihood, therefore, we must be prepared to carry out an efficient pollination program. To replace the loss of wild bees, resulting from destruction of their nesting places, we must resort to the only controllable pollinator known, the honeybee.

Pollination is the transfer of pollen from the anther of the male flower to the stigma of the female flower. This must be accomplished before fertilization and eventual reproduction can take place. If pollen is transferred from an anther to the stigma of the same flower, or to the stigma of a flower on the same plant, it is called self-pollination. If, on the other hand, pollen is transferred from the anther of one plant to the stigma of another plant, cross pollination is said to have taken place. Cross pollination normally takes place within the same species of plant, except in fruit pollination, where pollen is sometimes effective when transferred from one species to another.

A number of agents may be necessary for the distribution of pollen, because some pollens are dry and light and others are moist and heavy. The commonest agents for pollen distribution are gravity, wind and insects. Examples are corn where the pollen drops from the tassel to the silk, and pine pollen, with its bladder-like wings enabling it to be readily carried by wind. Deciduous fruit pollens are rather gummy and, generally, must be transferred by insects. Pollination may sometimes be accomplished by rain, birds, and artificial means devised by man. Even among many plants designated botanically as pollinated by wind and gravity, insects are sometimes a factor in the collection and distribution of pollen.

Any of the thousands of insects that visit flowers, purposely or accidentally can be agents for carrying grains of pollen. But of them all, the most important by far is the honeybee whose existence depends on pollen and nectar from plants. It is estimated that honeybees accomplish more than 80 per cent of the pollination by insects.

An individual bee usually visits one plant species to collect either pollen or nectar — a fortunate provision of nature, because a pollen from one species is not effective in completely fertilizing another kind of plant. An individual bee may spend its entire life working within a radius of ten yards and possibly on the same species of plant. The honeybee is the only pollinating agent directly under the control of man and may be moved readily from one area to another wherever its services as a pollinator may be required.

In Manitoba, honeybees can be used effectively as pollinating agents on sweet clover, white Dutch clover, alsike clover, red clover, sunflowers, fruits and vegetables, to increase seed yield and the quality of product. For sweet clover, sunflowers and ladino clover, honeybees at the rate of one colony per acre will usually be sufficient to give best results, while alsike clover, red clover and white Dutch clover may require two or three colonies per acre. For fruits and vegetables one colony per acre will usually be sufficient.

Most of the science, then, which we value so in these days has come to us in the train of all history out of the past; and poetry too has come with it, and music, and the great laws of righteous, without which we could be little better than the beast.—*J. N. Larned*.

On large acreages it is desirable to distribute colonies throughout the field, in groups not more than two to three hundred yards apart. Although many colonies are established on legumes before time of blooming, more effective pollination would be obtained if colonies were established when the field is 20 to 30 per cent in bloom.

The use of honeybees cannot be guaranteed to increase seed yield, because quite often some other factor such as weather, harmful insects, or improper harvesting methods, may interfere. With these conditions under control, however, increases in seed yield up to 50 per cent can be expected. In some instances, seed yields have been increased two, three and even five times with the use of honeybees in a planned pollination program.

The effectiveness of a colony of honeybees is based largely on its condition. Only an experienced beekeeper, therefore, who operates and maintains his colonies properly, is in a position to give good pollination service. Persons interested in pollination should arrange with a beekeeper to supply honeybees for pollination. It must be remembered, however, that in supplying bees for pollination they may not gather sufficient honey to repay the beekeeper for his trouble, and some form of remuneration will have to be given. This can be done either in payment of a set fee per colony, or a percentage of the seed crop over and above average production.

(*Note: D. R. Robertson is provincial apiarist, Manitoba Department of Agriculture, Winnipeg.—ed.*) V

Are there good jobs in a nickel mine?

"Yes, there are good jobs and a lot of them in the nickel mines and plants. There is still a certain amount of heavy work to do, but machines have made most jobs a lot easier and more pleasant. For instance, the ore today is handled almost entirely by machines instead of by pick and shovel."

"Do the men get good pay?"
"Yes, at Inco even a beginner makes good money. As time goes on there are chances for working into better and better jobs. In addition, employees receive medical and hospital care for themselves and families at very low cost to them. Pensions are paid to employees who retire or are disabled and these are paid for by the company. So you see Inco is a real good place to work."

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U.S. Farmers Vote on Quota

U.S. price support law has required a grower vote on marketing quota this year

ABOUT 900,000 U.S. wheat producers had a chance to vote on August 14, as to whether they would agree to the imposition of a wheat marketing quota for the next crop year, beginning July 1, 1954.

When the votes were counted that night, U.S. wheat growers had voted 7 to 1 for more controls to guarantee continuation of the rigid support price which is mandatory until the end of 1954 at 90 per cent of parity. This vote, which, in important states like Kansas and Iowa, was 90 and 91 per cent respectively in favor of controls which would mean high price support, compared with the 69 and 64 per cent respectively who voted in favor of President Eisenhower in the November presidential election of 1952. In Nebraska the comparison was between 83 per cent for controls and 69 per cent for Eisenhower; and in Minnesota it was between 98 per cent for controls and 55 per cent for Eisenhower.

The Agricultural Adjustment Act of 1938, with subsequent amendments, provides two methods by which wheat production may be restricted in the event of a burdensome surplus. These methods are (a) *a marketing quota,* and (b) *wheat acreage allotments.* Marketing quotas have been in effect only for the 1941 and 1942 crops. Wheat acreage allotments have been proclaimed six times since 1938 in the following years and for the total U.S. acreages indicated after each date: 1938—62 million acres; 1939—55 million acres; 1940—62 million acres; 1941—62 million acres; 1942—55 million acres; 1950—72,776,000 acres.

U.S. Secretary of Agriculture, Ezra Taft Benson, proclaimed marketing quotas on wheat on July 1, and two weeks later Congress fixed the national wheat acreage allotment at 62 million acres, because of the very large surplus of wheat available during the present crop year. Under the Act, the wheat acreage allotment may not be less than 55 million acres, but within this limit the Secretary may proclaim an allotment of acres calculated to produce a crop, which, including carryover and imports, will provide a supply of wheat equal to a normal year's domestic consumption and exports, plus 30 per cent of such consumption and exports. Recent U.S. wheat acreage has been in the neighborhood of 78 million acres.

After the wheat acreage allotment has been proclaimed, the acreage is apportioned to states and, within a state, to its counties, on the basis of the acreage seeded to wheat production during the preceding ten calendar years, allowing for some adjustments for abnormal weather and for over-all trends in acreage during the ten-year period. Within counties, the acreage is apportioned among individual farms, taking into consideration the number of tillable acres, the type of soil, topography and crop rotation practices.

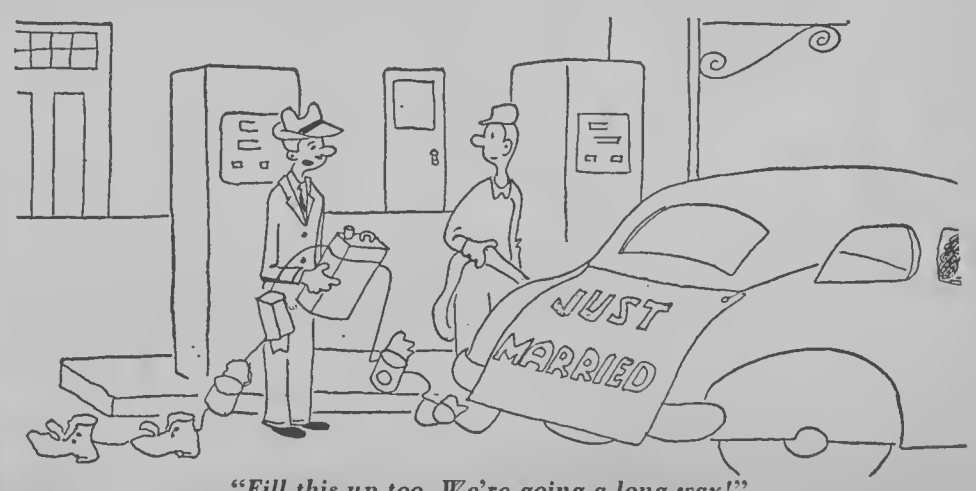
If growers do not comply with their individual acreage allotments they become ineligible for price support as *co-operators,* that is, they are not guaranteed 90 per cent of parity through the 1954 crop, but may receive such price support as the Secretary of Agriculture may decide to make available to *non-co-operators.*

Even in the absence of a national emergency the Secretary must proclaim a national acreage allotment each year, not later than July 15.

A marketing quota for wheat differs from a wheat acreage allotment in that the quota can only be proclaimed when the supply or the price level reaches a certain point specified in the Agricultural Adjustment Act. That is, when the total supply of wheat for the next marketing year is calculated to be more than 20 per cent larger than the "normal" supply; or when the total supply of wheat for the current marketing year is not less than the normal supply, and the average farm price for three successive months of the current marketing year has not exceeded 66 per cent of the parity price.

Total supply means the carryover at the end of the current marketing year (June 30, 1953), plus the production in 1953, plus estimated imports for 1953-54. *Normal supply,* on the other hand, means domestic consumption for the current marketing year (1952-53), plus estimated exports for 1953-54, plus 15 per cent for carryover reserves.

Acreage allotments need not be approved by producers, but marketing quotas must be approved. When a quota is in effect, *excess marketings* by producers are subject to a penalty per bushel, equal to 50 per cent of the basic loan rate ($2.20 per bushel on 1952 crop wheat). In addition, non-co-operators are ineligible for price support on the same basis as co-operators. Quotas for individual farmers are based on acres, not bushels, and the quota is the amount of wheat which is produced on the acreage allotted to the individual farmer, under the farm acreage allotment. V



"Fill this up too. We're going a long way!"

What Are Maximum Yields?

Can science make possible 90 or 100 bushels of wheat per acre under ideal conditions

AS far as The Country Guide is aware, there is no official, or even semi-official record of the maximum amount of wheat which has ever been produced from one acre of prairie soil, except the records maintained on our experimental and other institutional farms. Last year, two British farmers, brothers, established a record of approximately 125 bushels per acre under the conditions, climatic and otherwise, which exist in England. It would be interesting to know the maximum yield which has ever been secured on a commercial wheat field by any reader of The Country Guide, which was based on careful measurements and can be substantiated either by an official record, or by neighbors.

Country Guide editors have been led to speculate on this point by an experience in the state of Wisconsin in 1952. In that state the head of the Soils Department of the University of Wisconsin, Dr. Emil Truog, was asked by agricultural extension workers whether he and his associates could write a fertilizer prescription which would produce 100 bushels of corn per acre. In essence, the reply they received was: "If you will send us proper soil samples of the fields on which the corn is to be grown, we will test them and tell the grower how much nitrogen, phosphate and potash he must apply to produce 100 bushels of corn per acre."

This resulted in the formation of what was called the Corn Adventurers' Club in that state, to which 162 farmers belonged. In all, they grew 173 fields of corn and secured an over-all average of 124 bushels per acre. The top yield was 160 bushels per acre.

Each grower was asked to tell the Soils Department how much manure he intended to apply. With this information the Department calculated the amount of fertilizer needed, after making necessary tests of the soil samples submitted. The grower who produced 160 bushels per acre applied eight tons of manure per acre, 97 pounds of nitrogen, and 90 pounds each of phosphate and potash, or the equivalent in commercial fertilizers of about 900 pounds of 10-10-10 fertilizer.

Obviously, the total yield of corn per acre would depend on the number of plants per acre. On this farm there were 17,130 plants per acre (more than twice the normal number), or enough to put one kernel for each nine inches of row, in rows 40 inches apart. The fact that actual yields ran so much higher than the prescribed yields is believed due to the fact that 1952 was an ideal year for corn production, not only as to planting, but as to cultivating and growing periods as well. Following the 1952 experience in Wisconsin, Dr. K. C. Berger of the University of Wisconsin told a corn growers' meeting that 200-bushel yields of corn are feasible "if."

The ifs are important and are three in number. First, in that state the soil must be a silt loam in good tilth and with satisfactory moisture-holding capacity. Second, it must be fertilized as soil tests indicate it should be fertilized. Third, the number of plants per acre should range from 18,000 to 21,000, or one kernel of corn every seven or eight inches, in rows 40 inches apart.

To secure such a result the speaker calculated that in addition to applying 15 tons of manure per acre, it would be necessary to apply about 1,300 pounds of 10-10-10 fertilizer, 400 pounds of 4-16-16 fertilizer, and 250 pounds of ammonium nitrate per acre. This commercial fertilizer was estimated to cost $69.51 per acre. Adding the cost of the manure at $3 per ton, the grand total cost of fertilizer would be $114.51 per acre. This compared with a fertilizer investment of $24 per acre to produce 75 bushels of corn.

Costs on the highly fertilized field would run to $169.51, including all seed, cultivation and harvesting expenses. At 75 bushels per acre the cost would run to $73.89. Returns in the one case would be $320 per acre, with a net return of $150.49. On the lower-yield field the gross return would be $120, and the net return $46.11.

In western Canada it is commonly concluded that in dry years fertilizer is less effective. Dr. Berger is quoted as having said that fertilizer yields the greatest returns in droughty years. He cited experiences last year in Missouri where in one area, centered in the Missouri Farmers' Association corn-growing contest, there was only an inch of rain between planting and ear formation. Despite the fact that the fields seemed in July to have taken a bad beating, one farmer's fertilized field yielded 138 bushels after a fertilizer investment of about $23 per acre. On the same farm, an unfertilized field yielded only 49 bushels.

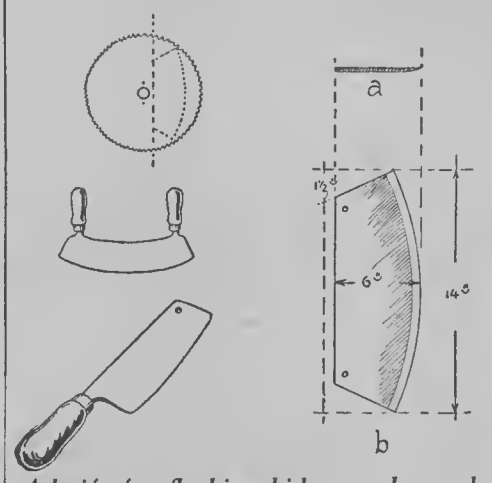
What about grains and forage crops in western Canada? What bumper yields do you know of? V

Dressing Furs and Skins

Continued from page 12

four fingers on the hair side of the skin, guiding the flesh over the edge of the knife and pulling at the same time to the right with your right hand. In doing this, scrape off all flesh, fat and loose skin. With practise, you will find this not very difficult to do.

AFTER the fleshing is finished you reach the third step, which is the tanning, or pickling, as it is known to the dressers. For this purpose, you should purchase from a drug, or photo supply store, a small, glass, measuring cylinder, which is graduated in cc's, as



A knife for fleshing hides can be made in the workshop.

used by chemists and photo finishers. Further, get a small amount (about a pint) of sulphuric acid, and a quart of either sulphonated neatsfoot oil or sulphonated cod oil and you are ready to proceed with the pickling. If your druggist hasn't the acid and oil on hand he should be able to obtain them for you.

Sheepskins and coon skins *only*, must be thoroughly washed and rinsed in water about 90 to 95° F., with detergents such as Fab, Tide, Surf or others using 1 oz. of detergent to one gal. of water. This is necessary owing to the great amount of fat in the wool and hide, and the consequent scouring of the wool. This washing, rinsing and draining must be done following the fleshing, and before the skins are put into the pickling liquor.

The approximate amounts of pickling liquor you will need for the various skins are: 4 to 5 gal. for a sheepskin; about 1 gal. for a fox; 1 qt. for a rabbit, or a mink.

Containers for the pickling liquor should be, preferably: a wooden tub (half-a-barrel), a dairy crock, a glass jar for a small skin, or enamelware, if not chipped, as direct contact between acid solution and metal will cause dark stains on the skins.

In making the pickling liquor, be very sure to dissolve the salt in the water first and then pour the sulphuric acid into the solution *very slowly. Never pour water into sulphuric acid*, as this will create a violent action, possibly spraying you with acid which may cause burns and ruin clothing.

For the pickling liquor take: 1 gal. water about room temperature, 1 lb. table salt, and 9 to 10 cc's of sulphuric acid. Into the prepared solution immerse the skin, and stir thoroughly until the skin is soaked throughout and no more air blisters remain among the hair. It is advisable to stir the skin several times during the first hour, and then let it rest overnight. Next morning, stir up shortly before taking the skin from the liquor, then hang and drain again for several hours.

AFTER the skin is thoroughly drained, stretch it on a table, with the flesh side up; and, with a soft brush, apply freely to the flesh side, an emulsion prepared with the sulphonated cod or neatsfoot oil, using 1 part sulphonated oil to 2 parts lukewarm water.

Again fold the skin along the spine, flesh to flesh, and leave for several hours to allow the emulsion to penetrate the flesh. When ready, unfold the skin and hang to dry with the flesh side inside, or on the lath. The place should be warm but not hot.

When the skin is thoroughly dry, in both hair and leather, it will be fairly stiff: Therefore you are ready for the fourth and last step in the finishing of all skins *except sheepskins.*

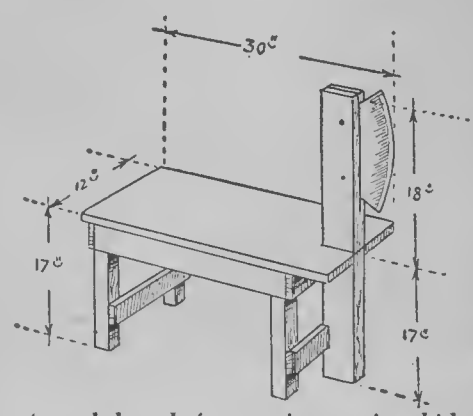
Take some sawdust—hardwood if possible—sprinkle it with water, and mix well until the sawdust is thoroughly damp, but not wet. Next roll the skin or skins, in the damp sawdust, so as to bury them, hair and all, and leave overnight. When they are taken out of the sawdust in the morning, shake them well and again work them over on the fleshing knife, exactly the same way as you did the fleshing, this time removing no skin or fat, but only stretching them. The pulling motion from left to right and from spine to flanks should be the same as before.

The skin, which should be somewhat damp still, from the sawdust, is hung up hair-side out, for airing, at room temperature, for about two or three hours. When airing is finished, take down the skin, rub both sides with plenty of dry sawdust for several minutes and after shaking out as much as possible, beat both sides of the skin with a supple switch, to remove the last particles of sawdust.

Then, for the last time, the skin is worked over the fleshing knife.

NOW to finish the sheepskin. After the first drying, a salt solution consisting of 4 oz. of table salt in 1 qt. of cold water should be brushed on the leather side of the skin. The skin is then folded, leather to leather, and left for about four hours, then worked over on the knife, the same as for the other skins.

Fig. 3



A work bench for use in tanning hides.

When this is completed, the salt solution is again freely brushed on, and the skin is stretched by tacking it out, flesh side up, on a table top, floor, or barn door, or whatever space may be available, and left to dry. When it is thoroughly dry, buffing with a glass, emery or coarse sandpaper block leaves a sheepskin to pride. V

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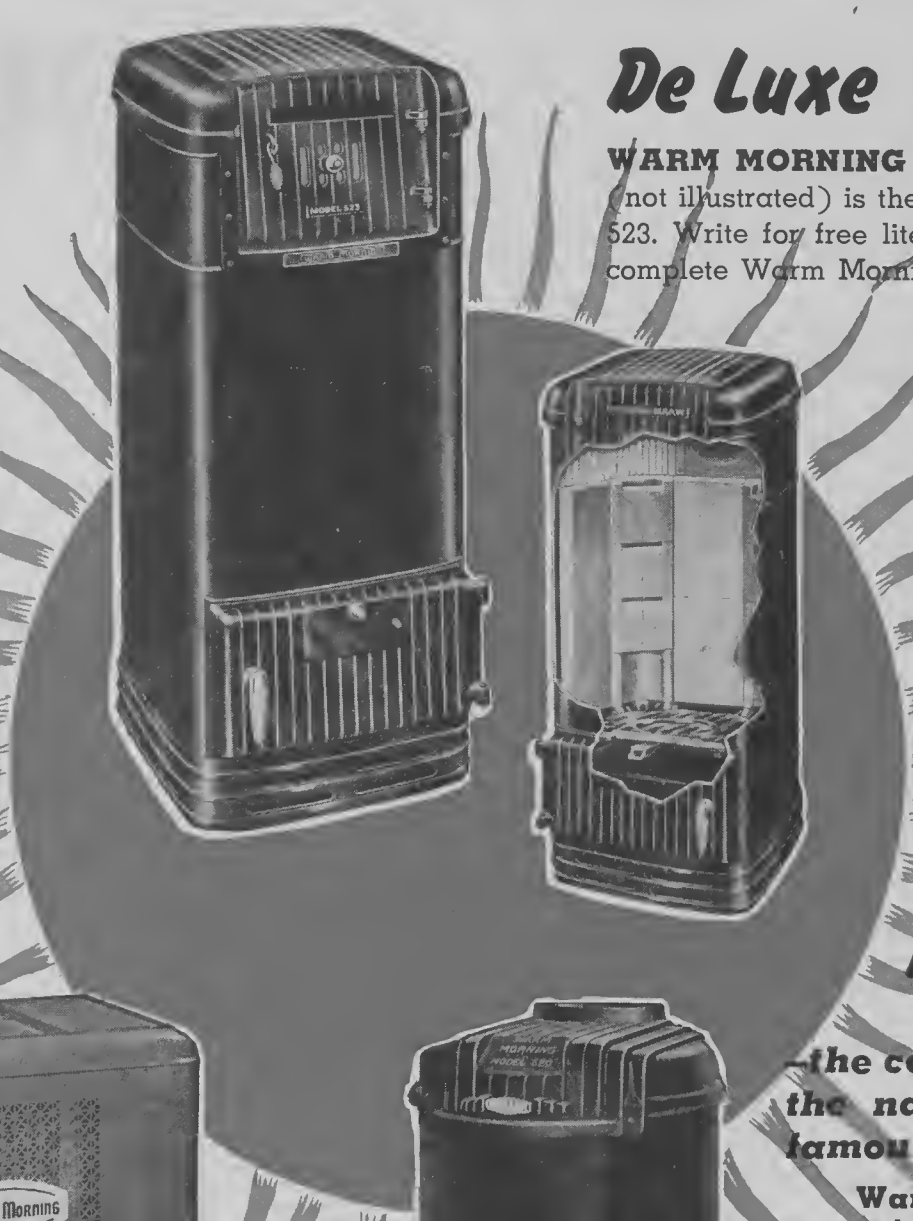

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Milk Supply In Mexico

by **EMIL ZUBRYN**

A SURVEY made by the National Bank of Mexico shows that annual consumption of milk in the Federal District (embracing Mexico City and its suburban environs) now is at 63 quarts annually, as compared with the 84-quart average in 1940. While no accurate statistics are available, the bank reports that outside of the capital, national consumption is probably less than half these figures.

The downward curve in milk consumption is attributed by the analysis to the fact that large segments of the poor are unable to pay the prevailing high prices for fresh milk. While cost of living statistics have been steadily spiralling upward in Mexico in recent years, wages have not kept pace with price rises.

Milk shortages in Mexico City have been a traditional phenomenon for years, and this has been aggravated by the large-scale increase in the city's population during the past ten years. Milk consumed in the city is supplied totally by dairies in the so-called milk basin made up of the Federal District, and the states of Queretaro, Tlaxcala and Hidalgo. Here are centered 1,500 dairies with a bovine population of 73,000 head.

Small dairies constitute 80 per cent of all milk producers in the region; but these only produce 33.4 per cent of the total fresh milk consumed. The large dairies, representing only four per cent of the total, supply 26.7 per cent of fresh milk for the city. The rest of the production is from medium scale operations which comprise 16.6 per cent of dairies in the milk basin.

The small dairies are usually weak and under-financed, always on the brink of bankruptcy and unable to compete with the powerful minority. The large operators are able to face and weather all production and market contingencies, and also have adequate financing. As a result of this unbalanced condition, the small dairies are always operating under conditions that are just barely sanitary, if the operator is honest, which is, unfortunately, not too often the case.

The small dairies, including some in the medium category, lack proper installations and equipment for the production and handling of milk. Frequently these establishments do not comply with the standards of hygiene stipulated in the regulations.

Production of milk is uncontrolled, and though the government has made a drive for pasteurization and sterilization of milk, the small dairies do not comply with regulations. Flying squads make raids in an effort to assure pasteurization, but the truth is that the small operators do not have either the funds, or the willingness, to institute sanitary conditions and pasteurize their product.

"Under such conditions this quality of milk has been found to be outside of all controls, to the point that tourist agencies have recommended that visitors coming into the country avoid drinking fresh milk in the Federal District," the bank report points out.

It is now obligatory for the small dairies to ship their raw milk to public pasteurization plants, and while about two-thirds have complied with these regulations grudgingly, it has brought about increased sales costs which these dairies are not able to meet. As a matter of fact, some of them have found it preferable to sell their milk to the pasteurization plants and these have undertaken distribution. The bank charges that this condition has made some distributors monopolists in their operations.

The situation has deteriorated to such an extent that large quantities of powdered milk have been imported into the country, in an attempt to alleviate the milk shortages felt in principal cities of the country. This may very well lead to another obstacle for the development of the fresh milk industry, since powdered milk in the country is used by official and semi-official rehydration plants, which are under no legal or sanitary regulations.

Sanitation, better strains in dairy herds, adequate transportation, refrigeration and latest type pasteurization equipment are all needed, if Mexico's cities are to finally receive adequate supplies of fresh milk that is really pure. This, apparently, will not be achieved in the foreseeable future. V

The Monsoon Miracle

by CAPT. T. KERR RITCHIE

IN England and other countries rain is taken for granted—and more often cursed than blessed. But in India and Pakistan the monsoon, not another word for rain, but a season, is the event of the year. The winter monsoon is simply rain in winter. It leaves one chilled and shivering. Although it is good for crops, people pray for it to do the good and go away. Fortunately it does not last too long.

But the summer monsoon is quite another affair. It is preceded by several months of working up a thirst so that, when the waters come, they are drunk deep and with relish. From the end of February when the last shower of winter has passed away, the sun starts getting hotter and the spring gives way to summer and blistering sweltering heat in a few weeks. Flowers wither. Flowering trees take their place. First come the orange-colored blossoms of the "flame of the forest," the vermilion of the coral tree, and virginal white of the chumpak. They are followed by the mauve jacaranda, the flamboyant gul mohar and the soft gold cascades of the laburnum.

Then the trees also lose their flowers toward the beginning of July. Their leaves fall into the dry dust. Their bare branches stretch up their arms toward the implacable sky begging for water. But there is no water from the empty blue void, through which slowly rolls the relentless yellow ball of a sun. The sun comes up earlier than before and licks up the drops of dew before the fevered earth can moisten its lips. It blazes away all day in a cloudless grey sky drying up the wells, streams, and lakes. It sears the grass and thorny scrub until they catch fire. The fires spread to the dry jungle.

The sun goes on scorching day after long day from east to west. The earth cracks up and deep fissures open their gaping mouths in places asking for water. But there is no water; not the tiniest drop. Only the deceitful shimmering haze at noon making mirage lakes of quicksilver. Poor countrymen take their thirsty cattle out to drink to the sole remaining well, and are struck down dead by the baleful sun with its quiver of fiery arrows. The rich wear sun glasses and hide behind chicks of fibre matting or bamboo on which their servants pour odd petrol tins of water. But the water evaporates in visible vapor and the sun makes ally of the breeze, which brings on the insufferable prickly heat and itching hides for man or beast. It produces a numbness which makes the head nod and eyes heavy with sleep.

Then comes a period of false hopes. The breeze drops. It becomes extraordinarily still and silent, save for the beads of sweat that keep rolling down off one's face and arms. From the eastern horizon a black wall begins to advance. Hundreds of kites and cranes fly ahead. Is it the blessed monsoon and the much prayed for rain from heaven? No, it is a dust storm. In furious sweeps it smacks the open doors and windows forwards and backwards, smashing glass panes. Thatched roofs and corrugated iron sheets are borne aloft like bits of paper. Metal door handles are untouchable because of static electricity. Trees are torn up from their roots. Electric wires get entangled, and start fires in homes.

This is repeated over and over again till you give up asking yourself "Is the wet monsoon ever coming?" You abandon all hope and feel like a spineless jelly-fish pegged down in a desert world. A gentle breeze begins to blow. It has a damp feel and a damp smell. There is the rumbling sound of thunder. In a split-second—hope renewed—you have sped up on the flat roof to see.

It is the same ebony wall coming from the east. A flock of herons fly across. There is a flash of lightning which outshines the daylight. The wind fills in the black sails of the clouds and they billow out across the sun. A profound shadow falls on the earth. There is another clap of thunder. Big drops of rain fall and dry up in the dust. Then sheets of water, wave after wave. You lift your face to the clouds, and — most gratefully — almost swim gaily in the long-delayed downpour. All work is stopped. Men, women and children run out madly shouting "Ho, Ho!"—hosannas to the miracle of the monsoon. Life begins again . . . V

It Won't Happen Again

Continued from page 14

some downy youth would make a go of it with Jo. She would come and tell me, all bright eyes and shining; and I would be a man back on a job gone routine and dull.

With Jo, nothing was routine. Even the bread-and-butter jobs that we planned had to pay for the things we wanted to do for their own sake. The fine editions we would one day print. The special jobs you could let yourself go on. Jo had a nose for that kind of thing. I noticed her young enthusiasms never got the better of her critical judgment.

"You know something," I told her one day, "you're a girl in a thousand. It's trite but true."

Jo's eyes widened. "You mean," she said, "because I love doing—all this with you?" She spread her hands indicating the unfinished and finished jobs. I meant more than that, but it was true enough to say, "Yes," and I said it. Jo smiled at me. "I'm—awfully happy here," she said.

"And it'll be a bad day when I lose you," I said. "It'll happen, you know. You'll up and tell me you're through. You'll be sniffing orange-blossoms instead of printer's ink."

"Who, me?"

"Some guy'll walk off with you," I told her.

Jo laughed merrily. "He'll sure have to make it good," she said.

IT sounded good. It sounded reassuring. I clung to it. But I kept my eyes uneasily open for the guy who'd make it good for Jo. I knew it had happened when Jo became broody and inattentive to her work. The boy was young Barry Chambers. A nice kid.

I felt an emptiness in myself, and yet I was glad for Jo, even though it meant she was no longer so anxious to stay after hours mulling over things with me; and no longer did we walk home together in the blue twilight or the spring thaws. May came and June was almost in; the blossoms were falling; the right summer green was coming along. Young Chambers was always underfoot. A nice kid; you can say that again. Respectful. Too all-fired respectful. "Yes, sir. No, sir." Sirring me all over the place; making me feel old, making the half-forgotten wound ache again.

Feeling debilitated, I dropped into the surgery.

"Maybe a tonic, Doc?" I suggested hopefully.

"I do the prescribing," Doc grunted. "Let's have a look-see." When the examination was over, he made the pronouncement, "Sound in wind and limb." He took off his glasses and twirled them—a habit he had—by one of the earpieces. "How about coming over tonight and reviving my canasta for me?"

"Meaning," I said, "I need something to keep my mind off—something."

Doc didn't give. But over canasta—which had to wait while a prolonged office-hour dragged through—Doc said, "Know what, Dave? Every time

I pass that house of yours I figure it shouldn't be just a rooming-place. It was built for a home. I remember when your mother and dad built it. There wasn't any home I'd rather drop into than yours. I suppose"—Doc took out a handkerchief and swirled the white cambric against his lenses, "it's just an old man's sentimental dream but, way I look at it, it'd be kind of nice if you were to find you a nice girl and take over the house again—"

"Girl?" I snapped him up on that. "Woman," I said, "Doc, you know something? You should. It's on your chart. I'm going on 34."

"—and settle down," said Doc, unheeding. "That is, if you mean to stay in town."

"It's a nice town," I said. "If I'd never known that I found out by leaving it."

"And with your printing establishment," Doc mused, "it's a pretty good set up all around."

I got up. I took a pace up and down. Doc swirled white against his glasses more furiously.

I said, "Have you some woman up your sleeve for me, Doc?"

"No," Doc said, "only on my heart."

He didn't press it further.

Late that night I walked back up home, and stood for a moment to inspect the house my dad and mom had built. A roomy, comfortable place. Things could be done with it, I told myself.

And, suddenly, I knew what I meant to do with that house. It would be a home yet. A home for Jo.

I went up the steps and in, still revolving it in my mind. I thought how wonderful if Doc's dream could ever come true for a man. This house done over, with Jo to help and plan. Jo to be its mistress. Jo to meet a guy at the door when he came home at night. It was moonlight again. In a moment of moonlight on a soft night with June whispering in the trees a man can indulge in a dream, a dream for his own happiness. I let myself do just that. Then I closed the door on the moon and went upstairs. My room seemed stifling. I went and pushed up the window and moonlight drenched the sill. A wonderful moon, round and full and gleaming; and all the world silver. Romance; there you had it. Down in the street fellows and their girls went by, laughing softly, talking in low tones.

"Jo," I said aloud, "this house. I'm going to make it a wedding gift for you."

Mr. and Mrs. B. Chambers. Nice people to occupy the old house.

"I'd give myself, Jo," I said, "but you can do more with an old house than a guy going on thirty-four."

A breeze whispered back at me, mockingly. I knew Jo would be out with Barry Chambers.

She was.

Next day she told me about it. But I knew already; it showed in her work, or in her lack of interest in her work. She was lost in herself.

Quitting time, she told me, "I was out with Barry last night, Dave."

"Yeah?" I said.

"Dave—this is strictly in confidence, of course, but—Barry asked me to marry him."

"Should I blame him?" I said.

"It isn't funny," Jo said.

No, it wasn't funny, but I wanted to take it in my stride. I waited. I toyed with a new folio of paper samples.

"You know what's about the toughest thing a girl ever has to do, Dave?" Jo asked. "It's to say 'no' to a nice guy."

The folio slid to the floor out of my hands. I stared at Jo. "You mean," I said, "you turned him down?"

There were tears in Jo's eyes. Like stars; unsure little stars. She said, vehemently, "Why can't men leave you alone—I mean why can't they just take friendship? Why have they got to make it hard for—for everybody? I don't want to marry—not yet, Dave. Maybe not anytime. I want to be myself. I want to—to work here. To do all the things there are to do."

I felt shaky. I was like a man reprieved. I was sorry for Barry, for Jo. Myself? Guess how I felt.

Jo said, blinking, "I guess I'm just a career girl. I guess you're stuck with me here, Dave." Maybe it was the look in my face; maybe it was something else, but she added, "Unless you start making passes at me."

Wouldn't you think I'd have remembered that? Wouldn't you think I'd let my luck stand—to have Jo with me every day and often evenings planning out work together—and not push it like a crazy fool?

IT was the night we got out our first small fine edition. It was off the press, the first copies bound, the dust jackets on. It was a book of poems. One of those privately printed things; maybe they were good or maybe not—I wouldn't know. But one, or a bit of one, I won't ever forget.

Still, it was the format we were interested in. I stood close to Jo while we examined the book. Our production.

"It's almost like having a baby," Jo said. "Well, there it is, Dave. Not too bad."

"Listen," I said, "it's darn near perfect."

Jo laughed. She had a silvery sort of laugh that bubbled up like a child's.

"The first one always is," she teased. "Oh, Dave—the things we can do! This is just the beginning."

She turned a page and then it was some of the words took a kind of meaning for me. I read:

"June brought our passion to flower.
Ere it came bleak grey November
Why did I not speak my love?
Now I can only remember."

I glanced up, and Jo stood there smiling at me, rubbing the back of her inksmudged hand across the tip of her pert little nose; and then her smile grew less sure. Her eyes pleaded with me, "Don't, Dave, don't," but I wasn't stopping now. Only when I had her in my arms, and felt her hands fighting me away did I come to my senses, and my murmur of, "Jo, darling," fell into an awful emptiness. And then I heard Jo crying.

"Jo," I said, "Jo."

"You've—spoiled everything," Jo sobbed.

And, like a symbol of it, the copy we had been looking at of our first fine edition lay sprawled face down on the floor, a leaf torn. She didn't even see that. I wasn't sure she even saw me as she walked to the back of the plant and slipped off her overalls and with queer jerky motions got ready to leave, and then headed straight for the door.

"Jo," I pleaded.

She said nothing until she had the door open, then she turned.

"Good-bye, Dave," Jo said. Just that, in a small, tight, final sort of voice; then she went out and closed the door firmly. After that there was only the clock tick-tocking in the emptiness of the place.

How long I stood there I don't know. Then I locked the place up, not caring if I ever entered it again. I went out and I walked up Main Street, feeling lost. I walked past Fenton's poolroom and the bakery and out beyond the town line; and then I stopped at Miss Tracey's where Jo boarded but Jo was already on her way, and so finally I came back to where the sign was lighted over Doc Warren's door, to find him relaxing before he went out to bring a new baby into the world, to have him ask me, "What's wrong?"

"Jo's left me," I said.

"Suppose you tell me," Doc said.

I spilled it all out to him; I said, desperately at last, "Look, Doc, you've got to patch this up somehow."

"I'm supposed to mend bodies," Doc said dryly.

But I knew he would do it if he could. And if anybody could it was Doc. I knew Jo would listen to him.

"Look, Doc," I said, "I'd rather clear out of town and out of the printing business if she'd go on with it. That kid has ideas. It'd break her heart to quit. I want you to make her see she's just got to come back. You can do it. She'd go to the North Pole if you told her to. Tell her what happened was—well, just because she was just one sweet kid looking all eager and excited and with a smudge on her nose, I forgot myself. Tell her I swear it won't happen again. She'll come back if you talk to her, if you make her see it was just—just one of those things."

Doc swirled his glasses. He said at last, "Where's she gone?"

"Home to her aunt's. Up at Clapper's Corners."

Doc grunted. "Convenient," he said. "Got to deliver this baby up that direction. Probably be up all night on the job, but I could drive round that way after it's over."

"Thanks, Doc," I said. "You make it clear to Jo—"

"Leave it to me," Doc said. "She'll be back dipping her nose in printer's ink again. Leave it to me."

"Alright, so it's wormy! Do you expect me to take it back for a refund?"

Doc was like that.

It was queer, but as I walked up the street to my house—the house that wasn't even going to be my wedding present to Jo—all I could think of was curing her heartbreak. My own was just a dull ache somewhere back of the breastbone. Only Jo mattered. I went quickly up to my room, avoiding anybody I might have to talk to. When I turned on the lights the first thing I saw was Jo's picture. She hadn't given it to me, and I hadn't asked for it. We'd had some pictures taken of the plant, and from one of them I'd cut this of Jo, and had it framed.

I picked it up and looked at it a long time; and then I opened a drawer and tucked it far away in the back out of sight.

"Jo," I said aloud, "you've got my promise. It won't happen again."

Outside in the June night a patter of rain began. Sleepless, I heard it in the small hours. I wondered how Doc was getting on with the baby. I wondered if Jo was sleeping, or lying awake in her aunt's room up at Clapper's Corners, and how soon in the morning Doc would get around to persuade her, and to give my solemn promise to her.

MORNING broke wet and foggy. The lights were on when I reached the plant. The presses were running, and the binder was busy with more of the special edition. Old Mac, the binder, came over very solemnly to tell me he'd found one of them on the floor, all damaged. He wondered how it got like that.

"Carelessness," I said.

"What'll I do with it?"

"Throw it away," I said.

"Aye," Mac nodded, "before Miss Jo gets here."

"Just that," I said.

I didn't want to see it; I didn't want to linger in the room with the presses and the binder. I went back into the small office at the rear, and lit a light and immersed myself in accounts. But I kept looking up. I kept listening for Jo to come.

Suppose Doc failed; suppose he couldn't persuade her? Suppose Jo never came back?

Slantwise through the small office window I could see the street. I saw a bus, its lights on because of the fog, come along and stop. It was the bus that came by way of Clapper's Corners. The door opened and someone stepped down.

It was Jo.

"Good old Doc," I said, and then I wondered. I wondered if I was ready for her return yet. My heart began to thump too hard, and a kind of sickness was in me. I heard her saying good-morning out in the plant, and then I heard her footsteps coming closer. She stood in the office doorway almost hesitantly. I knew it wasn't going to be easy for either of us, after what had happened.

"Hello," I said.

"Hello," Jo said.

She had on her green waterproof slicker, and her head rose from that green sheath like a flower.

I smiled to show how casual it all was.

"You know, Jo," I said, "this darned printery just couldn't get along without you."

"No?" Jo said. She took off her slicker and hung it on a peg, and stood there adjusting her hair, patting it, woman-fashion, with her fingers.

There were raindrops on her hair. I noticed all the little things I shouldn't be noticing, because I'd made my bargain and put it in plain words to Doc, and I meant to stick to it. Never again, Jo, I thought, to hold you in my arms, or feel my lips on yours; only please don't stand there looking so tense and shy and — and happy to be back on the job. Don't make it hard for me.

We stood there, Jo and I, looking at each other, almost as if we were feeling each other out. She said nothing, and I couldn't think of anything more I could say. Nothing, anyhow, that I dared to say.

That silence hung between us; but the telephone fortunately took us off the rack. I reached for it.

The clipped voice of the operator came through. "Clapper's Corners calling . . . There's your party, doctor."

"Hello!" I said.

"That you, Dave?" Doc Warren shouted; he always shouted into telephones. "I wanted to tell you about my talk with Jo. Now here's what happened—" Doc's voice trailed on more quietly; then he began to shout again, "Are you listening to me, Dave? I say, are you there?"

I was listening all right, but it hit me so hard I choked on any words.

I said now, "Thanks for everything, Doc, but Jo's back."

"She's what?"

"Back."

"Back where?"

"Here," I said.

"What made her do that?" Doc shouted.

I looked away from the telephone. I looked at Jo standing there.

"I'm beginning to guess," I told Doc.

I hung up on him. I began walking to where Jo stood looking tense and almost shy. Maybe I was a bit deadpan still. I had to be sure.

Jo faltered, "I didn't sleep much last night, Dave."

"Me neither," I said.

Jo said, "I'm sorry I was so silly. It was just so—so sudden." She hesitated, looking up at me. "If it'd help you could kiss me now. If you'd like to."

"I'd like," I said.

Old Mac came to the door, took off his glasses, and backed away. He looked pleased.

When I let go of Jo she said, "You knew, didn't you, it wasn't just the printery I came back to?"

"I began to suspect it," I said, "when I was talking to Doc on the phone just now."

"Doc? What did he want?" Jo asked.

"Just to tell me," I said, "that because a baby he was expecting didn't show up on schedule he hadn't got around yet to doing a little errand he'd promised me to do."

"If wild animals are as scared of us as we are of them, I just saw the scaredest bear in the world."

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The Countrywoman

The conference of the Associated Country Women of the World held in Canada reflects the amazing growth, development and interest in rural women's organizations in many lands

by AMY J. ROE

DELEGATES and representatives of rural women's organizations, numbering some 900, from 27 countries attended the Seventh Triennial Conference of the Associated Country Women of the World, in Toronto, August 12 to 23, 1953. It was the largest in attendance since the 1936 meeting in Washington, D.C. Each constituent society, organized on a state or national basis, is entitled to send five official delegates. Since the 1950 meeting in Copenhagen, 19 new societies have become members. This year's meeting in Canada marked the widest representation from the various countries of the world, since the A.C.W.W. was organized in Vienna, in 1930.

The Federated Women's Institutes of Canada and Les Cercles de Fermieres of Quebec, were the hostess societies and in charge of arrangements, special Canadian features of entertainment and post-conference tours. The province of Ontario had the honor, as well as the responsibility of acting as host to foreign visitors, excepting on the afternoon and evening of Friday, August 23. On that day over 12,000 delegates, officials, and many visiting members from Ontario and other provinces and from the United States filled Toronto's famous Maple Leaf Gardens for Canada Day ceremonies and the evening production of a dramatic and musical cavalcade, "Dominion of Destiny."

THE conference theme was stated in question form: "How can the country woman, as an individual and through her society, take a more active part in international work?" The program and business was in charge of the A.C.W.W. executive committee. Mrs. R. Sayre, of Iowa, in her presidential report pointed out:

"This conference has been designed to give you a minimum of business and more opportunity for discussion and sharing of problems. We shall do well, however, to think of this time together not only as an occasion for doing essential business and thinking through common problems but also as a time for renewing our faith in this great and enduring fellowship and for rekindling the light of our spirit."

New A.C.W.W. officers: (left to right)—front: Mrs. Dahlerup-Peterson (Denmark); Lady Coomaraswamy (Ceylon); Mrs. A. M. Berry, president (Australia); Mrs. H. Summers (Ontario); Mrs. Ian MacDonald (U.S.A.). Rear: Miss Beryl Hearnden (England); Mrs. Kleyn-Menalda (The Netherlands); Mrs. Elema-Bakker (The Netherlands); Miss M. E. Payne (Australia); Mrs. Olufine Riseng (Norway); Mrs. G. Apperson (U.S.A.)—with a number missing from photo.

The presence of a special group of observers from eastern countries lent added color to the international keynote. They contributed freely to the discussions and added greatly to recommendations and findings on ways and means of raising the living standards of rural women the world over. Their presence was made possible through the assistance of the Ford Foundation and the Technical Assistance Branch of United Nations—undoubtedly as a result of Mrs. Sayre's quiet suggestion and firm encouragement.

Direct from Pakistan came Begum Miam Amin-ud-in, wife of the governor of Punjab and Begum Hussian Malik, daughter of Pakistan's governor-general and secretary to the All Pakistan's Women's Association. India was represented by Dr. K. Nimbkar and Mrs. K. Kuupuswamy. From Egypt, came Mrs. Matilda Greiss, a Cario home economist and outstanding welfare worker. From Lebanon, came Mrs. Loreen Rihani and Mrs. Adelaide Richani.

Japan, through its ministry of agriculture and forestry sent: Miss Kiyoko Niimi and Mrs. Yoshie Omura, neither of whom spoke English but who were accompanied by a young Japanese woman from Toronto who acted as interpreter. Later this group was increased by the presence of Miss Marion Zarour, from West Jordon, whose home at Ramallah, lies just ten miles north of Jerusalem. This young Arabian woman, after completing a course on social science at the University of London, England, was on a travelling scholarship from United Nations. She had just come from Fort Qu'Appelle, Saskatchewan, having sat in on a short course on Co-operatives. On return to her homeland she expects to be occupied with phases of community development.

At the opening of the conference the delegates and accredited visitors had the opportunity to attend round-table discussion groups. Each group had its chairman, secretary and guest speaker, the latter to launch the chosen subject. These came under the following headings:

Problems and programs of rural women in less developed areas; technical assistance program; education of rural youth; ways and means of spreading information about UN and its agencies; adult education programs for A.C.W.W. societies; economic problems of people on the land; conservation of natural resources; international exchange programs.

A resume of the main points in each group was later presented to a plenary session. Through the distribution of mimeograph copies the delegates were able to share the information provided.

The three main conference committees were on: Constitution, Finance, Policy, Publicity and Publications. It has become the practice for the delegations to have one member to attend each of these, so that the society may have a rounded-out picture of the discussions preliminary to any formal action taken by A.C.W.W.

TO acquire an understanding of the structure and functioning of an international organization; to gain a workable acquaintance with the names of the leaders, the duties of the officers is an intricate matter, not to be mastered by a delegate in the busy 12-day conference period. It requires preparation, study of printed material and briefing in advance by those who have had experience at past meetings.

The president's report was truly a "mountain-top view" of the aims, accomplishments, problems and outlook of country women the world over, viewed through the (*Please turn to page* 79)

Delegates wearing native costumes lent color to the gathering: (left to right): Begum Amin-ud-in (Pakistan); Mrs. Marie Kleiwegs (The Netherlands); Mrs. Bessie Gray, Chippewa Indian (Sarnia, Ont); Mrs. Fritz Hay (Norway); Begum Malik (Pakistan).

Rae Underhill paints souvenir plaques to give A.C.W.W. friends.

Summer Visits

A short trip into Manitoba and Saskatchewan presents opportunity to visit remodelled homes at Souris with Mrs. Strath, to discuss handicrafts with Mrs. Underhill of Hartney, and at Elkhorn, to talk turkey with Mrs. Lund

by LILLIAN VIGRASS

JULY is a pleasant month to travel the roads and by-ways of the prairie provinces. This year, the crops were still luxuriantly green as they moved and swayed in the breeze. The roads may have been dusty but they were bordered with tall grass or green shrubbery and prairie flowers in rich bloom.

So it was with a feeling of well-being that, during the last ten days in July, I made my way across south-western Manitoba and southeastern Saskatchewan visiting Guide readers.

Before I had gone far I found that I had a briefcase crammed to overflowing with new ideas, notes, pictures and recipes. I was bringing back pleasant memories of farm visits, new friends and acquaintances. I even had a jar of homemade strawberry jam as a souvenir of a pleasant trip.

There are improvements and changes made every day in rural living just as there are in every other aspect of life. The "power" that has been brought into many rural areas, in particular, has played a large part in the appearance of the homes, the kind of equipment in the homes, and in the kinds and amount of work the rural homemaker does. With this thought in mind I convinced my hostess-for-one-day, Mrs. Jos. Strath of Souris, to take me to see a number of the homes in the Souris and Hayfield areas.

THE power, with all the advantages that electricity provides, is relatively new in this area. It has been brought into Souris within the last five years, into the Hayfield area, to the east, seven years ago. This—plus some fairly good crop returns—has been the needed impetus for most homemakers to remodel their kitchens and in some cases their entire homes.

For example, let us consider Mrs. Strath's own kitchen. The Straths live on a farm two miles north of Souris. The house is a white bungalow standing on the top of a small knoll. There are gleaming white cupboards, an electric stove and refrigerator and a newly installed water system in the work area of the kitchen. Colorful curtains on corner windows at the southeast make a bright and cheerful dinette. A bathroom with running water is next to the kitchen and in the basement is a 15-cubic-foot food freezer.

Luck was with us, at first, as we called on Mrs. Strath's neighbors. They were at home and, although probably very busy, took time off for a chat and to show me around. Every home we visited now had the power and many had running water. Large 12 and 15-cubic-foot freezers were evident in over half the homes we visited.

By noon we had arrived at Mrs. W. S. Holmes', to the north and east of Souris. When there was no answer to our knock and since the door was open, good-neighbor style we went in. The kitchen was another shining example of what can be done to an old farm kitchen with the advent of power and with plenty of hard work. Work and skill were evident, too, in the dozen jars of freshly canned cherries that were cooling beside the gleaming white stove. As I stopped to admire Mrs. Strath wrote a note to leave on the kitchen table. I noticed it said —"What! No dinner ready—and it is 12 o'clock."

But not all the kitchens were painted white. Several had cupboards finished to bring out the natural grain of the wood. Larger kitchens, I have decided, with plenty of light are the right setting for natural wood cupboards. The ones I saw that day were most attractive whether in light finish as at Mrs. Bob Scott's or in a darker tone as in Mrs. F. Phillips'.

By the end of the day we had visited eight remodelled homes or kitchens including one ultra-modern home owned by the Mackison brothers of Hayfield. Although the two men live alone their house is not to be eclipsed by any modern ranch style. The east wall of the living room is all glass, the heating outlets in low radiators less than 12 inches high under the windows. Outside, to keep out the too-bright mid-day sun, the roof slopes out for several feet then curves out under the side entrance to the south. The south wall of the living room is all brick with the fireplace opening built into the bricks at table height. The west wall has a high wide window located over the chesterfield. A wall-to-wall carpet is to be laid soon. I was immediately attracted to a big grandfather clock in the corner which Mr. Mackison explained had been brought over to Canada from Scotland years ago.

The kitchen is a dream of white steel cabinets, gleaming white refrigerator and stove and a 15-cubic-foot food freezer. Plants bloom in corner windows over the sink. I noted, too, much of the electrical equipment that anyone doing housework would wish for.

ANOTHER fine sunny July afternoon I found Mrs. A. E. Underhill, of Hartney, painting small figurines. She planned to give them, when finished, as souvenirs to new-found friends at the Associated Country Women of the World convention which was held in Toronto in August. As I admired the delicately tinted doll plaques she told me how much she enjoys handicraft work and of the classes she has taken since she has had more time.

The Underhills are farmers although they now live right in Hartney. Mr. Underhill drives out the five miles to the farm each day during the busy season. They spend their winters in Winnipeg with their two daughters who are working in the city.

Rae Underhill has always been interested in handicrafts. The first winter they lived in Winnipeg, four years ago now, gave her the opportunity she had often wished for to learn more about one handicraft at least. She took classes that winter in figurine painting.

So much did she enjoy it that the next summer, back in Hartney, she decided to pass on what she had learned to people who hadn't the opportunity to take classes in a larger city. That summer she taught figurine painting to classes at Melita, Lauder and Souris.

Teaching was entirely new to her. And it took a lot of courage, Mrs. Underhill admits, to start in instructing others. A vibrant personality and hard work, both in preparing numerous samples and in planning classes, made her an excellent teacher. She was soon asked by all the neighboring areas to help them with their craft projects.

The next winter, in Winnipeg, Mrs. Underhill actually accomplished five classes—clay work, figurine molding, another class in dresden craft, shell-work and copper tooling. When summer arrived Rae Underhill once again began to give classes in her home area.

Copper tooling is the most inexpensive of all. When teaching it she makes sure that at least one person completes a small picture, including the lacquering, in the afternoon on which the class is held. From this the ladies in the district can carry on alone, helping each other as necessary to acquire the art.

This is what makes teaching worthwhile to her. Her pupils can—and do—go on alone once they become interested in the subject. At first they copy the models shown by Mrs. Underhill. Then, as they become more familiar with the medium, they branch out on their own developing new ideas from similar and related objects in the stores, magazines or books.

Instead of finding time heavy on her hands now that she lives in a village and with her family grown, Mrs. Underhill tells me that the days aren't long enough nor the weeks long enough to accomplish all she wants to do.

Crafts are not her only interest however. Mrs. Underhill was president of the Manitoba Women's Institutes for the year 1952-53 and she was an official representative for Manitoba at the Associated Country Women of the World convention held in Canada during August. A friendly interest in everyone she meets and a sparkling personality have made her popular in W.I. work just as they have made her a much-sought-after craft class leader in the southwest corner of Manitoba.

A SCARCITY of saskatoons along the roads and an abundance of mosquitoes kept me in the car and on my way fairly well on schedule. The next morning I called in to see Mrs. Cliff Lund of Elkhorn. It was another fine sunny day. While she gathered the vegetables for dinner I enjoyed some of the raspberries that were ripening on the bushes nearby. Then we sat down for a chat.

For many years Mrs. Lund has raised turkeys as a side line. "But it has paid well," she says, and so is convinced that there is a place for the small turkey flock on a farm. When I saw her all white flock, 200 strong, it was spread out over the barnyard. They were healthy birds, then 12 weeks old, and a flock of which to be proud.

Mrs. Lund was named one of the directors of the Manitoba Turkey Breeders' Association at the annual meeting held at MacGregor this July. She felt it was necessary to have representation from the small turkey breeders as well as those who make turkey raising a full-time occupation and so she accepted the position.

At present her turkey flock consists of over 200 White Holland approved turkey poults, 50 hens and four gobblers. In the spring the eggs from the hens that had been wintered on the farm were shipped to a hatchery in Winnipeg where they were set. Payment was made for the number that hatched. With an average hatchability of 70 per cent the egg sales amounted to $500. Since the sale of the hens this fall will pay for their feed the returns on the eggs will be net profit.

Mrs. Lund believes 200 is an ideal number for the person who raises turkeys as a paying side line. By keeping an approved flock she is able to sell the eggs at a good profit and by buying young poults from the hatchery rather than hatching them on the farm she prevents many of the calamities and worries of turkey raising.

Turkeys do not take all Mrs. Lund's time, however. She is an active member of the Women's Institutes and has been secretary of the Elkhorn branch for 16 years. She has also been on the Birtle district W.I. board for a total of seven years. Mrs. Lund had planned (*Please turn to page* 76)

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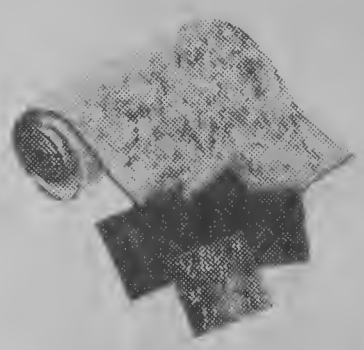

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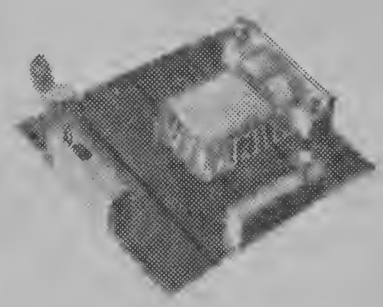

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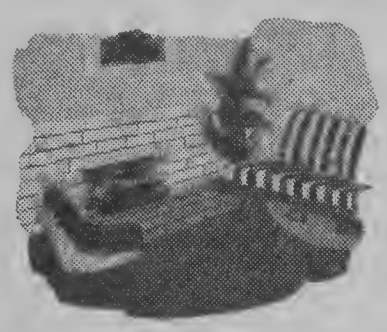

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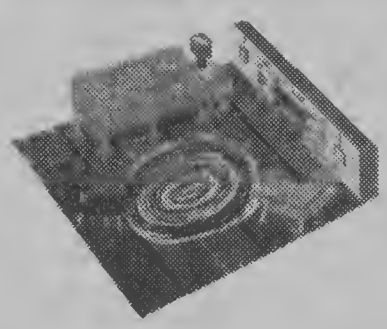

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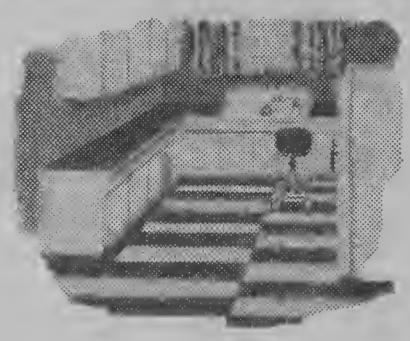

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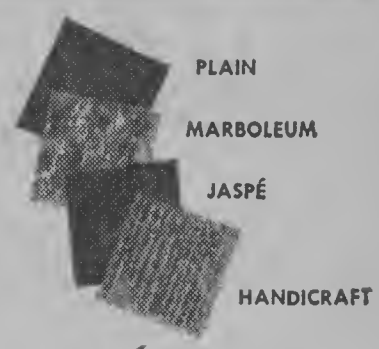

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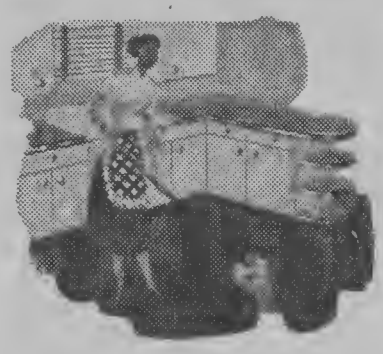

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Ways with Chicken

New ideas for Sunday dinners and throughout the week

For a Sunday dinner to remember serve fried chicken and a fruit salad.

NOW and throughout the year chicken is a treat for the entire family. The small young birds are cooked tender in short order and so may be fried or broiled as well as oven-baked. The larger birds usually require roasting or they may be fried then cooked with a sauce until done.

The year-old fowl need to be steamed or simmered if they are to be tender and moist. Cook the bird slowly and let it cool in the cooking liquid. The broth that is not used for gravy makes excellent soup.

Baked Chicken Scallop

- 1 *3-lb. chicken*
- 1 *c. flour*
- 1½ *tsp. salt*
- ½ *tsp. pepper*
- 2 *eggs*
- ¼ *c. water*
- ¼ *c. minced onion*
- 1 *c. cream*

Cut chicken into serving pieces. Sift together flour, salt and pepper. Beat eggs, mix in water. Dip chicken in flour, then in egg mixture. Roll in cracker crumbs. Brown in hot fat. Place chicken pieces in two-quart casserole and sprinkle with finely minced onion. Add cream. Cover and bake at 350° F. for 1½ hours or until chicken is tender and golden brown.

Fried Chicken

- 1 *1½-lb. chicken*
- ¼ *c. flour*
- 1 *tsp. ginger*
- ¼ *tsp. pepper*
- ½ *tsp. salt*

Cut chicken into serving pieces. Sift together flour and seasonings. Roll chicken in flour mixture and fry in fat until tender.

Barbecued Chicken

- 1 *4-lb. chicken*
- ¼ *c. flour*
- 1½ *tsp. salt*
- ¼ *tsp. pepper*
- ½ *c. hot fat*
- 1 *T. Worcestershire sauce*
- ¼ *c. grated onion*
- 1 *c. tomato juice*
- 2 *T. water*
- ¼ *c. vinegar*
- 2 *T. butter*
- 2 *T. chili sauce*

Cut chicken into serving pieces. Mix flour, salt and pepper. Roll chicken in seasoned flour and brown in hot fat. Combine remaining ingredients. Pour over browned chicken. Cover and simmer on stove for 1½ hours or bake at 350° F. for 1½ to 2 hours or until tender.

Chicken Loaf

- 1 *4-5 lb. chicken*
- 2 *eggs*
- 1½ *c. soft bread crumbs*
- ⅛ *tsp. rosemary*
- *Marjoram*
- 2 *T. chicken stock*
- 1 *c. sour cream*
- 2 *stalks celery*
- *Nutmeg*
- *Salt and pepper*

Cook chicken in pressure cooker or in boiling water until tender. Remove meat from bones and cut in small pieces. Combine bread crumbs, beaten eggs, rosemary, a pinch of marjoram, a few grains of nutmeg, salt and pepper. Dice celery, add sour cream and stock. Add to chicken and bread crumb mixture. Pour into greased loaf pan (8½ x 4½). Bake in pan of hot water in 350° F. oven for 50 minutes—until knife inserted in center comes out clean. Unmold and slice. Serves 4 to 6.

Escalloped Chicken

- 4 *c. cooked chicken*
- 6 *c. dry bread crumbs*
- ¾ *c. melted butter*
- 1¼ *tsp. sage*
- ¼ *c. cream*
- ¾ *tsp. salt*
- ¼ *c. chicken fat*
- ½ *c. flour*
- 4 *c. chicken stock*
- 2 *T. onion*

Cut cooked chicken into cubes. Arrange in bottom of 3-quart casserole, or loaf pan 13 by 9½ inches. Combine dry bread, melted butter, sage, salt, pepper, chopped onion or chives and cream. Cover chicken with dressing mixture. Make gravy from chicken fat, flour and stock. Pour evenly over top of dressing. Bake at 350° F. for 30 minutes or until lightly browned.

Lemon Barbecued Chicken

- ⅔ *c. butter*
- 2 *c. water*
- 2 *T. lemon juice*
- 1 *tsp. salt*

Prepare enough chicken to serve 6. Cut in serving pieces. Rub with salt. Broil or fry until brown. Mix above ingredients. Bake chicken, covered, in moderate oven basting frequently with lemon sauce.

Chicken a la King

- 2 *T. butter*
- 3 *T. minced green pepper*
- 1 *c. sliced mushrooms*
- 2 *T. flour*
- 2 *c. light cream*
- 1 *tsp. salt*
- 3 *c. cooked chicken*
- ¼ *c. butter*
- 3 *egg yolks*
- 2 *T. minced pimento*
- ½ *tsp. onion juice*

Fry mushroom and green pepper in 2 T. butter. Blend in flour. Add cream gradually, cook until thick, stirring constantly. Add chicken. Place in top of double boiler over hot water. Beat ¼ c. butter until creamy, then add egg yolks one at a time, beating after each addition. Blend into chicken mixture. Cook until consistency of boiled custard. Add minced pimento, onion and lemon juice and salt. Serve immediately on toast, biscuits or in patty shells.

Chicken Souffle

- 4 *T. butter*
- 4 *T. flour*
- 1 *c. milk*
- *Dash cayenne*
- ½ *tsp. salt*
- ⅛ *tsp. pepper*
- ¼ *tsp. sugar*
- 3 *eggs*
- 1½ *c. cooked chicken*
- ½ *tsp. minced parsley*
- 1 *T. chopped pimento*

Combine melted butter and flour, stirring until well blended. Add milk, stirring constantly. Add sugar and seasonings. Cook until thick. Remove from heat. Separate eggs. Beat yolks well. Add with finely minced parsley and chopped pimento to hot mixture. Fold in finely chopped chicken. Cool to lukewarm. Beat egg whites until stiff. Fold into cooled mixture. Pour into greased 1½-quart casserole. Bake at 350° F. for 1 hour. Serve immediately. Serves 4.

Chicken Surprise

- ½ *lb. spaghetti*
- 1 *T. fat*
- 1 *T. flour*
- ¾ *c. milk*
- 1 *egg yolk*
- *Salt and pepper*
- 2 *c. finely chopped chicken*
- 1 *c. mixed, cooked vegetables*
- 1 *T. chopped parsley*

Line casserole with cooked spaghetti. Make white sauce of fat, flour, milk, egg yolk and seasonings. Add remaining ingredients. Fill center of mold and cover with spaghetti. Oven poach at 325° F. for 50 minutes. Serve with tomato sauce.

School Lunch Time

Ideas to add variety and interest to the children's lunch

SCHOOL lunch days are here again so get out the lunchbox and dust it off well. It will have to be filled five days a week for the next ten months.

To many homemakers this is a big chore. School lunches can become very monotonous in the making—and in the eating. Just as you will find the making less tiresome the youngsters will enjoy their lunches more if you can work in plenty of variations.

As the school lunch is one of the three daily meals for the children it must be substantial. It helps if it contains many of the foods they would have at lunch at home, that is: milk, a fruit or vegetable, meat or meat substitute and a dessert. Be sure to have something crisp or chewy, something moist, and if possible, include a little surprise such as stuffed prunes or dates, olives, nuts, stuffed celery or a piece of candy.

On cold or wet days it is particularly important to include a hot food. It may be the milk for the lunch in the form of cocoa or cream soup. It may be a vegetable soup or chowder, baked beans, scalloped potatoes, creamed vegetables or a stew.

Fresh fruit or vegetables in season will please the youngsters. Apples and oranges can be sent in the lunchbox often, a tomato, carrot curls, turnip sticks, celery or radish will add a crisp note to the lunch—but don't forget to include the salt and pepper shakers. At other times send along a jar of canned fruit, fruit salad, jellied fruit or a jelly for a change. They go well with buttered slices of quick bread for dessert.

Other desserts, too, may go into a jar. Custards and milk puddings are popular and are a different way to include milk in the lunch. Still another use for the jar in the lunchbox is for carrying vegetable, jellied or meat salads.

The bread for sandwiches may be varied from time to time. If white bread is used be sure it is made from enriched flour. At other times use brown bread, rolls, muffins, biscuits or a quick bread such as orange or nut loaf, graham, raisins, date or fruit bread.

As for sandwich fillings, meat or meat substitutes such as eggs, cheese or peanut butter are best for a lunch without a hot dish. Tomato sandwiches should be made just before eating so put the whole tomato in the lunchbox, buttered bread, a knife, salt and pepper, and let everyone make his own.

Sandwich Fillings

Cold sliced meat loaf with relish or mustard.

Sliced, chopped or ground meat with chopped pickles, olives, celery, grated onion or catsup.

Grated cheese with chili sauce.

Creamed cheese with nuts or marmalade.

Chopped hard-cooked eggs with dressing, pickle or onion.

Mashed baked beans with mustard.

Peanut butter and honey or jelly.

Ground liver, salad dressing and grated onion or pickle.

Flaked fish with a little vinegar, celery or pickle.

Chopped bacon with mustard and chopped egg or celery.

Lunch preparations take but a few minutes with this young man's help.

Minced sausage or bologna with chopped pickles.

Peanut butter and orange juice.

Cottage cheese and chopped chives, salt and pepper.

Chicken or turkey with jellied cranberries.

Cottage cheese with jelly.

Home-made sandwich spread.

Salmon loaf with salad dressing and lettuce.

Baked bean loaf with chili sauce.

Meat Loaf

1 *lb. ground beef or beef and pork*
½ *c. dry bread crumbs*
½ *c. milk*
1 *egg*
1½ *tsp. salt*
½ *tsp. pepper*
Chopped onion
3 *slices bacon*

Mix meat with seasoning and crumbs. Beat egg in milk and add. Chop onion fine and add. Stir well. Put the slices of bacon on bottom of loaf pan. Pat in meat mixture. Bake at 325° to 350° F. for 1¼ hours. Slice when cold and use as sandwich filling with mustard.

Baked Bean Loaf

1½ *c. baked beans*
¼ *c. milk*
½ *c. dry crumbs*
1 *egg*

Mold into a loaf. Brush top with fat. Bake at 350° F. for 30 to 40 minutes. Slice cold and use as sandwich filling with minced onion and salad dressing.

Honey Sandwich Bread

½ *c. bran*
4 *tsp. baking powder*
1½ *c. flour*
1 *tsp. salt*
⅓ *c. honey*
1 *egg*
1 *c. milk*

Measure and sift dry ingredients. Add remaining ingredients. Beat and blend thoroughly. Bake for one hour at 350° F.

Orange Biscuits

2 *c. flour*
4 *tsp. baking powder*
1¼ *tsp. salt*
¾ *c. milk*
1 *orange*
1 *T. sugar*
3 *T. butter*

Sift flour then measure, sift dry ingredients. Add the grated rind of orange. Cut in butter to consistency of cornmeal. Pour in milk. Stir then knead on lightly floured board ten times. Pat out and cut biscuits. Dip a piece of loaf sugar in the juice from the orange. Press it gently into the center of a biscuit. Repeat for each biscuit. Bake at 450° F.

Chocolate Syrup

1 *tsp. salt*
1 *T. vanilla*
2 *c. boiling water*
1 *c. cocoa*
1¾ *c. sugar*

Mix all but vanilla. Cook slowly 30 minutes. Remove from heat. Add vanilla. Bottle. Serve 2 to 3 tablespoons in a cup of hot or cold milk.

When Mother Went Shopping

by JEAN BEATTIE RUTTY

ON a Saturday morning not long ago I stood in a queue in a grocery store. There were three lines slowly moving up to the cash desk. I chose the middle one, not because it was the shortest but because experience had taught me to make a quick appraisal of the number of heavily laden baskets to be checked by the cash girl. This line had fewer baskets, smaller loads. It would move faster.

As we moved up a step or two at a time I watched the shoppers around me. Quite near was a little girl and her mother who was carefully choosing a large cauliflower. She looked at the price marked on the white stub and murmured, "Sixty-four cents," looked at it thoughtfully, then as she put it down and chose a smaller one my mind somersaulted backwards.

I thought, "Sixty-four cents! Why my mother used to buy me a dress for that."

Then, standing there in line, moving up a step or two at a time, I forgot the busy hurrying people about me; I no longer saw the women pushing their shopping carts up and down the long aisles, scanning the shelves for their favorite brands of foods. I was seeing my mother shopping in our "General Store" in a small town in Ontario back in the nineties.

FIRST, she bought the "dry goods." The clerk would deferentially place a stool for her to sit on, and we three little girls would cluster round eagerly watching while he took great bolts of white dimity and organdy from the shelves behind him and spread them on the counter. Mother would feel them carefully between her thumb and finger, and on being assured it was the best quality in stock she would sit thoughtfully calculating how many yards of the dimity to buy for a dress for the eldest—"the eldest" always came first in our family—and next she would choose a piece for the two younger ones, who were always dressed alike.

"And now I will look at some cambric," Mother would say. The two younger ones pinched each other. That would be for petticoats and drawers, we knew, but they were "unmentionables" in those days. Then came the supreme moment. We would all put our heads together over the various patterns of fine narrow lace to be used for trimming. When the choice was finally made, mother would say, "I'll have a card of this and a card of insertion to match."

Then to us she would say, "We'll use the same lace on them all." But well we knew that "the eldest" would have a few more rows of insertion or a few more rows of tucks on hers.

Leaving the clerk to measure and cut and wrap these purchases, we would proceed to the grocery department. As she led the way, smiling and bowing to acquaintances, we thought Mother looked beautiful in her long skirt and fitted basque with a ruffle of lace at the throat and her little sailor hat securely fastened with two long hat pins.

At the time I was not interested in the groceries, but now I almost gasp when I remember the casual way my mother would say, "Twenty pounds of granulated sugar and ten of brown, and I'll have a box of raisins." A "box of raisins" on my mother's grocery order meant a large wooden box, which must have held at least five pounds.

The dry goods clerk would bring his parcels down and add them to the great heap on the grocery counter. Mother would say, "That will be all today, thank you," gather up her three daughters with a glance, and the shopping was done.

One clerk would hasten to open the door, follow her out and help her into the buggy and get the three little girls settled, two on the seat and one on a stool at her feet. Then while the clerks who had served her carried out parcels and stowed them away in the back of the buggy, he would untie the horse and hand the reins to Mother. At last everything was done, the three young men stood about saying goodbye, Mother was nodding and smiling, and the fat little grey mare was switching her long tail and starting off at a slow trot and—

Suddenly, I was back in Calgary, in the spring of 1953, the cash girl had just wrapped my head of lettuce and in a crisp, authoritative voice was saying, "Twenty-two cents, please."

Summer Visits

Continued from page 72

to attend the A.C.W.W. convention in August but duties at home prevented her going. Although disappointed she will no doubt have read all the reports of the convention with interest.

Her annual spring holiday is a trip into Winnipeg to attend the Manitoba Women's Institutes convention which she has attended faithfully for well over ten years. She is interested in the many projects and activities with which the W.I. is concerned. She enjoys the new outlook given by the guest speakers and each spring looks forward to renewing acquaintances with women of her own interests and way of life.

Last winter Mrs. Lund was one of the leaders of the Elkhorn 4-H Sewing Club. Although it was the first time she had done work of this type, and in spite of the fact that she was working alone for the month previous to Achievement Day, the club made an excellent showing.

She is a director of the Elkhorn branch of the Manitoba Co-operative Creamery, a member of the hospital aid in Elkhorn and vice-president of both the local branch of the Red Cross and the Elkhorn Rest Room Association.

As for hobbies she enjoys writing and does a fair amount of it for the local paper. She is always willing to report on the happenings of the Women's Institutes district and provincial meetings as well as events of interest in her own district She does quilting, sewing and needlework, and she has even covered her own chesterfield in a most professional manner.

Designed for Making

Fall suggestions to make for yourself or as gifts

Make a "Link" Belt

Kit No. M-110

Girls and women are making them to wear with slacks, ski clothes, skirts, etc. Boys and men wear them constantly. The "kit" we send you includes sufficient leather "links" to make a full-length belt. There is also a buckle, a keeper and the perforated tab for the end. No tools or special skill required. You merely weave one link into another, following our easy directions. The links are cut out ready to work. Everything is there—you just fit the pieces together. Grand gift suggestion either made up or in the kit form. They come in brown, natural and black. Ask for Kit No. M-110, price $1.20 which includes the postage and handling charges.

Pineapple Chair Set

Design No. C-372

This set matches the other "pineapple" pieces we have included in the needlework department from time to time. It is a popular design and there is no need to emphasize the importance of chair sets to protect those best-liked chairs. Easy to launder; easy to make; a nice decoration. For a chesterfield we suggest a four-piece set made up of the two arm rests and two back pieces—one for each side of the chesterfield. Design No. C-372. Price 25 cents for the working directions.

Little Sue Cot Cover

Design No. 635

The quilting lines of this pretty cover for a tiny tot's bed are stamped on the cover. The design is also clearly stamped ready to embroider. When it is embroidered the cotton is placed over wadding and the quilting is done by hand. If you wish, of course, the lines can be done in outline stitch or chain stitch embroidery and the cover left unlined. Edges are finished with lace or bias binding. The cot cover is Design No. 635 and is $3.00 which includes the stamped cover, the instructions and postage. Send 30 cents extra if threads are required.

Address orders to The Country Guide Needlework Department, 290 Vaughan Street, Winnipeg, Manitoba.

Money-Making Ideas

by LOUISE OSBORNE

CLUBS all over the country are forever searching for new ideas on how to make money with which to carry on their valuable social work. In Canada, we have, on the average, six individual organizations in each small community.

Because of the intense competition, your idea, to prove successful, must be unusual or else it will not show a reasonable margin of profit for the labor involved. The idea must also appeal to the average pocketbook in your particular community.

Have you ever tried the mail-order cake week?

You simply deposit a card with each householder bearing the notation that goes something like this:

Would you care to order a cake?
Price 90 cents.
Chocolate? .....
White? .....
What day next week for delivery? .....
Sign name and address here .....
Return to club member .....

The members make the cakes in the morning and have them delivered by late afternoon. In this way the householder has a ready dessert for her evening meal and you reap the rewards on a week's work without the worry of leftovers or the fickleness of the weather.

Many groups are going ahead with the family-night-out idea which is proving popular in many villages. The Home and School Association in one small village rented a movie film from a distributor in the nearby city and showed the film on a Friday evening for a small fee. Their first showing was *The Royal Tour,* and proved so successful that they went on with a cowboy movie the next month. A group of the members popped corn in the hall previous to the show and needless to say the tempting aroma sold the popcorn without any extra publicity on the part of the ladies.

The refreshment booth plays a popular role at one of these "family affairs" and greatly adds to the evening's profit.

You will need four members working on popcorn. A good committee woman will have all four burners on your stove in use providing there is room for four ladies to work around the stove at the same time. Don't begin by undercharging. Buy the one-pound size bags that you can sell for ten cents. There is little profit in a half-pound five cent bag . . . especially if you plan to sprinkle on a little butter.

A cookie swap is a good idea at any time of the year. Each woman brings two dozen of her fanciest, tastiest cookies. They are arranged on plates on a long table. Each lady armed with a box she has brought for the occasion then selects two dozen assorted cookies to make up the two dozen she originally brought to the swap. Tea is served by your club for 25 cents, and while the lady enjoys her tea and tastes a cookie or two she can now have a friendly chat and exchange recipes.

You'll find this a good way to get to know the newcomers in your community. Why don't you try one!

Countrywoman

Continued from page 71

understanding eyes of Mrs. Sayre. She has rare gifts of insight and power to sense and grasp the significant and to explain meaning to others. Much of the material in her three main addresses and in two shorter ones is worthy of direct quotation and doubtlessly will be liberally quoted in many of the societies' own publications and by speakers reporting to member groups. Two excerpts, quoted from her report illustrate the quality of her thinking as well as the simple grace of expression:

"If you would understand the A.C.W.W. and view it in its true proportions, you must see it not in terms of the international and national associations or even in the terms of the individual member. You must see it as a vast, global network of small, active voluntary groups of country women. In literally thousands upon thousands of small communities around the world these local associations are to be found. These groups are the firm and strong foundations of the A.C.W.W. They are indeed the Associated Country Women of the World itself . . .

"We have, indeed, made a name for ourselves. But we cannot come to this conference with complacency. For there are vast rural areas in the world today where the changes so vitally affecting the lives of country women to lighten their labors and to improve their status, have not taken place.

"I am convinced from my experience in these areas of the world where the position of country women is still subordinate and where illiteracy, disease and poverty pose incomprehensibly difficult situations, that we shall not see progress in solving these problems until the village women have been reached with programs for the improvement of agriculture and home and community life. Women are the creators of attitudes in the home and in the family in every country, no matter how subordinate their position in the life of the community. If changes in traditions and habits are to be made, women must first see their value. Moreover, women in many of these lands are the farmers. The men may plow, but the woman sows and reaps. If the new methods of agriculture are to be introduced, the woman must know their importance."

THE A.C.W.W. executive, composed of the officers—the president, vice-presidents, honorary treasurer and honorary secretary and six members-at-large elected by the conference carry on the business between Triennial Conferences. Mrs. Charles Russell, England, presented the chairman's report showing that the period 1950-53 had been one of expansion. The work had grown remarkably both in scope and volume. In spite of a move to a more adequate office and additional staff, the growth "which has taken place in the last three years has produced a state of bursting at the seams in all directions." In a closely printed 15-page booklet, details are given as to the disposition of resolutions, representation at UN conferences and contacts and cooperation with UN specialized agencies: with particular attention to FAO. A small group had been set up to study and discuss, among other things, the problem of the growing amount of work connected with United Nations and its specialized agencies. "In the long run," said the chairman, "it is the work the national societies do that will show results of our efforts to maintain and promote the ideals and principles of the United Nations."

Mrs. Russell, who has served on the executive committee for 16 years, retired as chairman this year. There were many fine tributes paid to her ability, unselfish effort, leadership and inspiration to others, by representatives of Australia, New Zealand, Canada, Sweden, Ceylon, U.S.A., Africa, Scotland, England and Wales. In reply Mrs. Russell said: "It has been a privilege to do this work. I came into it unexpectedly 16 years ago upon the invitation of Mrs. Meyer of Switzerland. Many of us, left after the first World War, felt that we must work toward better international understanding. The relationships which we can make must be based on knowledge and understanding of other people and other lands. There remains much to do."

DUES from member societies, subscriptions from contributing members and interest from investments cover only ten per cent of the annual A.C.W.W. expenditures, as shown in the report of Mrs. D. M. MacGrigor, honorary treasurer. "The Pennies for

Informal group at tea, prior to conference. From left to right: Mrs. John Bell, general secretary, London; Dr. Mary Rutnam, Ceylon; Mrs. Elema-Bakker, The Netherlands; Mrs. Marjorie de Mel, Ceylon; Mrs. Raymond Sayre, Iowa.

Mrs. Betty Farkas, of Long Island, is as pretty a housewife and mother as you'd want to meet.

Friendship Fund can now be acknowledged as the backbone of A.C.W.W. finance. It is made up of voluntary contributions, given on International Day, by members of constituent societies and corresponding groups, or otherwise raised by some money-making effort, whichever method is preferred." It amounted to £8,500 at the close of the fiscal year, ending March 31, 1953. The budget figure of £11,000 per annum for the Association was set and approved for the 1953-56 period.

A history of the A.C.W.W. has been compiled, bearing a memorial tribute to Mrs. Alfred Watt, president of A.C.W.W. from 1933 to 1947. Copies are available at a price of $1.75. The official publication *The Countrywoman* has a circulation of 4,800 and had issued four supplements on special timely subjects.

Film strips on the work of the Association and its societies have been made and of the Copenhagen conference and are available. Leaflets on the work of A.C.W.W. have been printed in four languages and distributed. Translations of prize-winning essays have been paid for. The sale of the A.C.W.W. Cook Book has been good, almost equalling the number printed. Over 19,000 letter-friends have been linked by the central office, up to July, 1953.

THE formal opening ceremony of the conference took place on the first Friday in the Convocation Hall of the University of Toronto, with Mrs. Hugh Summers, president of the Federated Women's Institutes of Canada presiding. Addresses were given by Mrs. Sayre and representatives of the governments of Ontario and of Canada. Greetings were brought by the A.C.W.W. vice-presidents from: The Netherlands, New Zealand, Scotland, Sweden, Canada, United States, Ceylon and Kenya. An impressive feature of the ceremony was the processional march of Junior W.I. and Home Making Club members, bearing the flags of the nations, which were placed in position across the back of the stage. At the close delegates and visitors were guests at a tea served by the hostess societies on the lawn and in Hart House. The city of Toronto entertained delegates to luncheon. There were two formal dinners, one given on the first Thursday evening by the Province of Ontario, with Premier Leslie Frost presiding and welcoming the delegates and accredited visitors. The closing A.C.W.W. dinner was held on the second Saturday evening. Of that event and of Canada Day I hope to write more, later.

Early Sunday morning 22 large buses conveyed conference members to Guelph (given the family name of Queen Victoria, the monarch reigning at the time it was incorporated) in time to attend an inter-denominational religious service in Memorial Hall, on the pleasant campus of Ontario Agricultural College. Rev. W. A. Young, B.S.A., Padre, O.A.C., gave a quietly inspiring message to the congregation of women, which filled the building—women of different religions and varying creeds, from far-flung lands.

Following a satisfying lunch, taken in relays at O.A.C.'s efficient cafeteria, passengers reboarded buses for the journey to Stoney Creek, where the Salt Fleet township office proudly wears a simple sign, worded: *"This is the site of Squires Hall, Stoney Creek, where was formed the first Women's Institute in the world*–1897."

THIS was in a true sense a pilgrimage of representatives of rural women in A.C.W.W.–numbering over six million, through affiliation of 103 societies in 27 countries. They paused on the green lawns in a minute of silence to pay tribute to Adelaide Hoodless–who had an idea, which sparked the formation of a local group to organize and carry on an educational program. Her story has become a legend known to thousands at home and abroad. Mrs. Sayre, speaking briefly at the outdoor ceremony said: "The legend has now become a living reality for all of us today. It has significant lessons for us: It shows the power of an idea; the power of a woman; the power of an individual. Its message to us is: commence where you are with what you have at hand."

Five women, who had been charter members, three of whom had been at the first meeting in February, 1897, were on hand to greet the visitors. These were Mrs. Murray Neil of Hamilton, 90 years of age; Mrs. G. Glidden of Vivemount, aged 70, who was only a little girl at the time but whose mother enrolled her as a member; Mrs. Fred Madden; Mrs. H. P. Van Wagner and Mrs. J. B. Smith. Present were a son and daughter of Erland Lee, the man who encouraged Mrs. Hoodless to address a meeting of the Farmers' Institute to which women were invited.

New Officers of A.C.W.W.

President: Mrs. Alice M. Berry, Queensland, Australia.

Vice-presidents: Mrs. Evelyn Klein, The Netherlands; Lady de Soysa, Ceylon; Miss M. E. Payne, New South Wales, Australia; Mrs. G. Apperson, U.S.A.; Mrs. Olufine Riseng, Norway; Mrs. Hugh Summers, Ontario, Canada; Mrs. Stofberg, South Africa.

Vice-presidents at large: Lady Coomaraswamy, Ceylon; Mrs. Dahlerup-Peterson, Denmark; Mrs. Ian MacDonald, New York, U.S.A.

Elected members: Mrs. O. Davies, England; Mrs. D. Elema-Bakker, The Netherlands; Miss Beryl Hearnden, England; Mrs. N. Kennedy, Scotland; Mme. Torma, England (Estonia); Miss Toynbee, England.

Honorary treasurer: Mrs. Dorothy MacGrigor, England.

Honorary secretary: Miss E. H. Pratt, England.

Next Conference Meeting Place

The decision as to where the 1956 conference of A.C.W.W. will meet, rests with the executive committee. Invitations were extended from: Scotland, by Mrs. N. Kennedy, who pointed out "that while it is a small country, its people were most virile;" from Ceylon, by Lady Coomaraswamy, who extended the invitation on behalf of the 40,000 Women's Institutes and the board of directors, who pointed out that the peace of the world largely depends upon conditions in Asia; from Australia, by Mrs. A. M. Berry, on behalf of the Women's Association and the people of Australia, who assured the members that they would enjoy Australia and that Australians would be happy to be able to return the warm hospitality that they have enjoyed.

Looking to Fall

No. 4399—A junior misses' overblouse and skirt make a lovely fall dress for school or best. White collar and cuffs give a spic-and-span look. A belt, three-quarter sleeves and a bright scarf make a second smart style. Pattern also shows a striped blouse tucked into a skirt with unpressed pleats, a wide belt and a contrasting tie. Sizes 11, 12, 13, 14, 15, 16 and 18 years. Size 14 requires 4½ yards 39-inch material or 3⅛ yards 54-inch. Blouse only requires 1⅞ yards 39-inch, skirt 1⅞ yards 54-inch. Price 35 cents.

No. 4416—This "jiffy" dress has no waistline seam. It does, however, have combined yoke and sleeves that are set in. Try a stripe or tweed in a fall color with a cross-wise yoke, for a different effect. Imitation breast pocket flaps are stitched to match the collar and cuffs. Second version shows white collar and cuffs on three-quarter sleeves, buttons on the front opening and a wide belt. Sizes 11, 12, 13, 14, 15, 16 and 18 years. Size 15 requires 3⅝ yards 39-inch or 2½ yards 54-inch material. Price 35 cents.

No. 4390—A basic dress, just right for every figure, can be changed from the tailored to the dressy with accessories. The six-gore skirt is flattering, the bodice darted at shoulder and waist, the sleeves are three-quarter length. Self-collar is smoothly styled roll collar. For accessories add an over-collar in a stripe, a white collar shaped as shown and cuffs, or a self-made lapel decoration. Sizes 12, 14, 16, 18 and 20 years, 40, 42, 44, 46 and 48-inch bust. Size 20 requires 3¾ yards 39-inch material. Striped collar requires ½ yard lengthwise stripe, collar and cuffs 1 yard 35-inch. Price 50 cents.

No. 4401—A practical but pretty coat for fall may be made in a brilliant hue, a pastel or a camel tan. The slightly flared back has a Martingale belt. Back pleat, sleeve seams, collar, cuffs and front are stitched in a professional manner. Pockets may be made inside with a flap or outside and stitched. The coat may also be made fingertip length. Sizes 12, 14, 16, 18 and 20 years. Size 16 requires 3⅜ yards 54-inch material. Price 50 cents.

No. 4369—For the young-at-heart make this casual dress. Full skirt has front tucks and flares to 105 inches. Simple bodice is darted beneath the armscye and at the waistline, front and back. Make it collarless to wear with a scarf or costume jewelry, or add a roll collar. The sleeves are three-quarter length. Sizes 11, 12, 13, 14, 15, 16 and 18 years. Size 14 requires 3¾ yards 39-inch or 2⅞ yards 54-inch material. Price 35 cents.

No. 4405—A wrap-around dress that is right for every figure. Note the one lapel that adds to the asymetrical look. The bias cuffs repeat the collar line; the skirt is slimming. Detachable white collar and cuffs for three-quarter sleeves included in the pattern. Sizes 12, 14, 16, 18 and 20 years, 40, 42, 44 and 46-inch bust. Size 40 requires 4⅜ yards 39-inch or 3⅛ yards 54-inch material. Price 35 cents.

State size and number of each pattern ordered.

Write name and address clearly.

Note price to be included with order.

Patterns may be ordered from The Country Guide Patterns, Winnipeg, or direct from your local dealer.

Simplicity Patterns

Northern Wild Fruits and Mushrooms

All wild fruits and mushrooms north of the tree line are edible. They grow in considerable variety, too

by EVA BECKETT

IN addition to the grasses, lichens and many beautiful wild flowers that flourish under the brilliant sunshine of Arctic summer, much of Canada's northland has an abundance of small fruits and many different kinds of edible mushrooms and puffballs.

Without exception, all fruits found north of the tree limit are edible and wholesome. Some kinds are undamaged by frost and may be eaten in springtime, when the snow has disappeared. So far, no poisonous species of mushroom have been found in the Northwest Territories, but one poisonous toadstool (*Amanita phalloides*) has been found at Athabasca Lake and may also grow in the rich, wooded valleys of the rivers of the western Arctic. Therefore, in forested areas of the north it is wise to avoid any mushroom that has a membrane-like cup or bowl, or a scaly bulb at the base, either above, or part-buried in the ground.

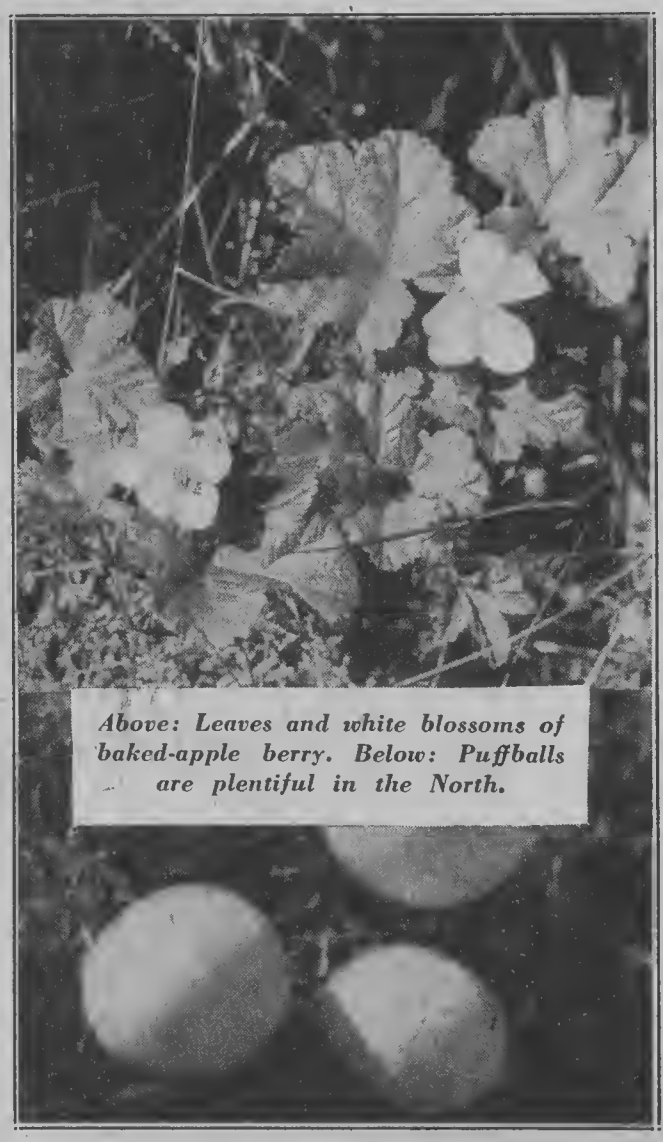
But on the wind-swept tundra or along the bleak treeless west coast of Hudson Bay, no poisonous mushrooms have yet been found. After a period of rain, quantities of edible species may be gathered almost anywhere. Morels, which are quite delicious and easily recognized, too, are the earliest. They appear among the grasses at the end of June, or early in July, and soon after them come the puffballs—large, luscious ones—which, when peeled, sliced and fried in butter or bacon-fat, are a food fit for the gods.

There are various ways of serving these mushrooms and puffballs. Each cook has her, or his, own favorite recipes. But whether stewed, fried, scalloped, or used in soup, they provide a tasty, nutritious variation of diet for many folks living in the northland, especially in regions where fresh garden vegetables are at a premium.

WILD fruits of the north provide food variation too. In every tiny settlement that dots the Northwest Territories, or fringes the coast of Hudson Bay, there are thrifty housewives who can point with pride, each autumn, to shelves of jams and jellies made from native wild fruits.

Along the coast of Hudson Bay in the region of Churchill, and even much farther north, we have gathered wild currants, both red and black, almost as large and luscious as the garden varieties. It has been claimed that these fruits were garden varieties brought to this country by the adventurers of trade. Yet Samuel Hearne, himself one of the early adventurers, in his "Journey to the Northern Sea" which was written before 1782, states: "Both black and red currants are common about the Churchill River. The bushes thrive where the ground is damp, but not swampy."

Hearne commented, too, on other fruits that were native to the north in his time, and which still grow here in abundance. Of the cranberries (*Vaccinium vitis-idaea*), small creeping plants with shiny green leaves, his Journal records: "Cranberries grow in great abundance near Churchill and are not confined to any particular situation, for they are as common on bleak, open plains and high rocks, as among the woods. When gathered carefully in the fall, in dry weather, and carefully packed in casks with moist sugar, they will keep for years, and are annually sent to England in considerable quantities as presents, where they are much esteemed. When ships have remained in the Bay so late that the cranberries are ripe, some of the captains have carried them home in water with great success."



Above: Leaves and white blossoms of baked-apple berry. Below: Puffballs are plentiful in the North.

Cranberries are still abundant in the Churchill district and, like other fruits of the north, are excellent antiscorbutics. The fruit is smaller than the cultivated variety of the Maritimes, or Cape Cod, but its flavor is second to none. The day will come, no doubt, when scientific

research will develop a variety of more marketable size, from this northern fruit. As it is, it makes a most delectable jam, jelly, or sauce, for serving with fowl and cold meats.

These cranberries winter well under the snow; and in springtime are as good as a tonic. But, it is sad to record that, with an antidote so readily available, many an early explorer needlessly perished with scurvy. Of Jens Munck's expedition alone, 63 men died of scurvy on the shore of the Churchill River, with the cure for their malady literally at their feet.

GOOSEBERRY jam is practically a staple in northern pantries, since this fruit is common in many districts. The plant (*Ribes oxyacanthoides*) prefers open country, thriving best on the well-drained, gravel ridges. It could be easily overlooked, because its branches, stemming out from a central root-stalk, lie flat against the ground, and the fruit is on the under side. To garner it, the thorny branches must be raised one by one and the berries plucked from underneath. Gooseberry jelly rates with the lovely amber jelly of the baked-apple berry, as the northland's best, though there is a special tang and richness to the flavor of all fruits that ripen under the brilliant rays of Arctic sunshine.

The baked-apple berry (*Rubus chamaemorus*) is the tundra's own golden fruit. A member of the raspberry family, it is a native of polar regions the world around. The mossy bogs are white with its blossoms in spring, and golden with its fruit in late summer. Much like a plump loganberry in shape, but golden when ripe, this fruit is known by many other names — cloudberry, fogberry, yellowberry, bogberry and mossberry. It is delicious eaten raw with cream and sugar, and may be canned, or made into jelly or jam.

Another, though by no means as abundant a member of the raspberry family, is the Arctic bramble (*Rubus acaulis*). A creeping plant too, it has pretty rose-pink blossoms in spring, and its fruit is like a small fine-flavored raspberry.

Bog bilberries (*Vaccinium uliginosum*), the "blue berries" of the Arctic, are excellent for pies, but, like the northern strawberries, are not plentiful every year. Their blossoms are easily injured by late frosts.

Crowberries, bearberries, and buffaloberries are here in abundance too. These are edible fruits, but tart and not such favorites as the ones previously mentioned. In Samuel Hearne's time, crowberry wine was highly esteemed, but for the most part these berries are left to the birds. Shorebirds and water-fowl feed on them copiously, when fattening for their long autumn migration. √

Jock and The Deer

Jock had not been trained for this emergency but he knew what to do

by CYRIL L. BATTEN

MANY farm dogs are accused, justly or unjustly, of chasing deer. It is a common complaint wherever the deer population is thick enough to be hunted. Some farmers living in such country are contrary enough to hope the complaint is just.

Where garden patches are surrounded by natural bush, inhabited by deer, a dog that can be taught to chase deer, but not to injure them, is a great asset. Even with such a guardian the garden will suffer to a certain extent; without him, the task of growing vegetables is almost hopeless.

Jock has been trained to keep foraging deer from the garden, and he barks furiously at them whenever they venture in for a change of diet.

Since Jock himself is kept out of the garden by a woven-wire fence his guardianship is of a somewhat abstract nature. He has acquired the habit of remaining at the garden gate whilst he challenges the intruders, and the deer have apparently become so used to him that they take little notice.

The full-throated bark to which Jock gives voice on these occasions bodes ill for the deer should Jock come upon one unawares; and since he is quite speedy on his feet we have always been somewhat uneasy of the consequences should he ever tackle a deer.

It is a startling fact, however, that on the only occasion on which Jock has managed to touch a deer, he probably saved her life.

In the late spring, many deer feed on our farm. It seems that they come out from the bush where they have lived on twigs and buds all winter, to browse on the first green grass, and on the sprouting grain in the fields. Two or more herds of from six to twelve deer are a common sight in the early morning, or as dusk approaches at night.

After about a month of this kind of feeding the deer disappear back into the bush, and are seldom seen for about a month. When they reappear they usually have small fawns at heel, or indicate by short grazing periods and frequent disappearances into the trees, that fawns are nearby.

The deer had largely disappeared by the time we had the cows confined to the pasture this spring, and one evening, when Jock accompanied me on the chore of bringing home the milk cows, neither of us expected to see much else but the cattle.

It had been a long day, and the job of bringing home the cows was somewhat later than usual, so the light was failing when we entered the pasture.

Jock never did have any interest in cattle, except to gambol with the calves. It was quite the usual thing, therefore, when he plunged off into the dusk, nose to the ground, to see if he could find any late retiring gophers —or perhaps to get into one of his frequent brawls with a skunk.

He was barking furiously, on the east side of the pasture, when I located the cows grazing peacefully on the west side. As I herded them together I felt Jock's nose against my hand—then he was gone again. Soon

he was once more barking excitedly in the dusk.

After he had made three trips to me and away again, even my limited understanding of a dog's ways grasped the fact that Jock wanted me to go with him. I left the cows and accompanied him.

IT was a strange sight which met my eyes. As we neared the fence on the extreme east of the pasture Jock ran ahead of me and I could see him crouched on the ground beside the motionless form of a deer. Strangely, the deer had one front leg extended into the air. It was not until I reached it that I discovered why.

The deer's leg was caught in the fence, and it was lying half on its back. The animal's eyes were protruding with fright, and as I stood beside it I could hear its heart thudding beneath its fleshless ribs. Jock was lying close beside the deer's body, whining to himself, and licking the deer's nose sympathetically.

I hastened to examine the deer's leg and to discover how it might be assisted. It was apparent that the animal had been running toward the bush and had attempted to jump the fence. Since deer do this quite regularly and suffer no inconvenience in doing so, it must have been the deer's condition which had entrapped her so strangely.

She was very thin; her hip bones stood up like grim peaks from a tangle of shedding and mangy-looking fur. Along her sides most of the hair was gone—probably brushed out from her passage through the bush. She was heavy with fawn, and appeared almost at her last gasp.

In her weakened condition the three-strand barbed wire fence had been too much for her. In jumping she had put one forefoot under the top wire, and over the second. Apparently when her foot caught, her body had catapulted over the fence in a somersault, and she had landed on her back with one foot caught tightly. The two strands of wire were twisted around the fetlock above the hoof, and were so tight they had cut into the flesh.

I was aware that a deer's front feet can be very dangerous, and I was in something of a quandry about how to free her from the fence, without having her leap at me and tangle me in the fence as she was freed. I need not have worried as, I discovered afterward, she was helpless.

THE problem of freeing her was solved when I remembered I had pliers in my pocket. I stood well back and cut the top wire. The imprisoned leg fell helplessly, and I could see the shoulder blade straining at the flesh where it had been pulled so badly.

Noting that the old doe was unable to move, in spite of her fear of Jock and myself, I dropped to my knees beside her to look her over for injuries. I could find no broken bones—nothing except the strained shoulder. and she really flinched when that was touched.

By that time the cows had wandered up to investigate, and it must have presented quite a spectacle. An injured deer; a sympathetic dog; myself massaging the deer's shoulder, and a half-circle of solemn-eyed bovines watching inquisitively.

In a short time, the doe showed signs of trying to stand, so I supported her neck and helped her to her feet. She stood on three legs, and made no effort to move away.

I continued to massage her shoulder and flex the injured limb for several minutes before she hesitatingly put her foot to the ground. She could put no weight on it at all.

Such an injury, I felt, would be better with exercise, and since I had no intention of adopting the animal I started her for home. I pulled and pushed gently at her, until I got her away from the fence, and the cows. Then a slap over the tail told her goodbye.

Jock got very excited and barked loudly when he saw her walking. I told him to leave her alone, though, and he sat by my side with his head cocked to one side. Together we watched the deer walk slowly into the approaching night. She walked, or rather hobbled, on three legs, and she never looked back.

Since that episode we do not worry too much about what Jock will do to a deer if he catches one. He probably never will again—but if by any chance he does, it is fairly certain that the deer will suffer no injury. V

Sheep Farming In the Okanagan

During the year, the sheep feed on three levels— in the Valley, on the uplands, and high in the mountains in large flocks

by GEORGE GRASSICK

THE Okanagan Valley, with its long hot summers and short winters, is so famous for its marvelous fruit and vegetable crops that other activities like cattle raising, dairying and sheep farming are seldom mentioned when this part of the country is referred to elsewhere in Canada.

In the North Okanagan, around Vernon, sheep do very well. The spring is early; there are thousands of acres of good sheep pasture; and this part of the valley lies adjacent to huge areas of mountain country — Crown lands — on which the government allows sheep to run at ten cents a head for the season.

There are several breeds of sheep in this part of the country. A leading flockmaster, whose home ranch is situated a couple of miles from the outskirts of Vernon, favors a cross between Rambouillet and Romney Marsh. Lambing takes place in March, and as soon as the weather warms up in April the flock is shorn. The ewes in this flock average eight pounds of wool—ten for yearlings.

On this ranch, spraying replaces dipping, and both ewes and lambs are treated. The next move is to take the flock to the early summer pastures on the deeded land lying above the irrigation level. The soil on these highlands is often merely a thin covering over bedrock, but it is warm, and growth comes early. The grass is short and nutritious, but by the middle of June the weather is generally so hot and dry that this pasture begins to fail. Then it is time to move the flock to its summer grazing ground high up on the mountains.

Every great scientific truth goes through three stages. First, people say it conflicts with the Bible; next, they say it has been discovered before; lastly, they say they have always believed it.—*Louis Agassiz.*

In this instance, the sheep must be driven on foot for nearly 70 miles.

IN the old gold-rush days, mule pack-trains used to be nursed along the trail, getting their own sustenance as they made their 15 miles a day, by nibbling here and there along the roadside. In moving a flock of 1,500 sheep and lambs along a modern highway on foot, six-and-a-half miles a day is considered good going. Like the mules, they pick up their living as they go.

On the road with sheep, the rule is: an early morning start, then make camp shortly after noon, and stay there until the following morning.

In ten days the flock has reached its summer pastures high up in the mountains, where the last snow is still in evidence, and where it is delightfully cool after the scorching sun in the valleys. Here the vegetation has spring-like freshness, and there is plenty of good water.

Some sheepmen combine their flocks. One shepherd tends over 3,000 head in the mountains in this way, but it requires another full-time man to pack supplies up to camp from the nearest railway. The biggest item is salt for the sheep, as it takes a ton and a half of salt to supply 3,000 sheep during the three months they are in the mountains. All of this, and the other supplies as well, must be carried up the mountain on pack horses. A horse is good for a load of 200 pounds.

The lambs make splendid growth and shipments of lambs are made several times toward the end of the grazing season, so that by the time the flock is ready to return to its home ranch early in October, it has been reduced to half its original size.

Sheep in the North Okanagan can generally find some grazing until nearly Christmas, when, as a rule, the snow covers the ground until the middle of March. During these two-and-a-half months alfalfa hay is used as winter feed.

Small flocks do not do as well as large because stray dogs get at them, and worry the sheep. Many small sheep owners in the past have had to give up keeping them on this account. This is one of the disadvantages of having a small flock in a thickly settled district.

A couple of years ago a cougar killed 40 ewes belonging to one flock owner near Vernon, before it was hunted down and shot. As a rule, cougars do not molest sheep which are being watched over by a shepherd with a rifle. V

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It's Time to Light Up

Continued from page 9

Commission in 1942, was a postwar program to electrify a minimum of 25,000 farms in ten years. The program authorized by the government in 1945 was designed to link up 35,000 farms in seven years. Shortage of materials in the early years of the program stretched the program out to nine years, but increased the number of farms to 39,000.

The only actual cost to the Manitoba farmer is for the wiring of the buildings and the purchase of appliances and equipment. He is asked to make a $65 deposit before the extension of the line to his farm begins, but this is returnable when the wiring is completed and the connection made, or he may apply it against the purchase of appliances and equipment from the Commission, or leave it on deposit to be applied against his monthly electric bills.

The Power Commission, at an average cost of approximately $900 per farm, brings the power to the farmer's yard, with yard pole and transformer installed. The Commission believes that by the time the farmer has purchased an average amount of electrical equipment and appliances, his total cost will approximate that of the Commission. Also, for a period of two years after connecting with the system, the Manitoba farm user may purchase such appliances and equipment as the Commission handles, at substantially less than full retail price.

The original estimate of probable consumption of electricity per month by farm users was 50 kwh, to reach 100 kwh after five years. The present average in Manitoba, which is confirmed by the experience of many other areas, is believed to be more than 250 kwh per month.

The Manitoba Power Commission is financed by borrowing from the Manitoba Government for which it must pay the full carrying charge. It receives also a grant-in-aid for the building of rural transmission lines (not distribution) which may not exceed three per cent of the capital cost of the transmission lines in any one year. The grant is provided from the money received from water power rentals, and last year amounted to $688,954. Based on 5,000 new farm customers per year the grant or subsidy amounts to less than $150 per farm.

IN Saskatchewan, by the end of 1948, only 1,500 farm homes had been wired for power by the Saskatchewan Power Corporation. In March, 1949, however, rural electrification legislation was passed which provided for the setting up of rural power districts to which power would be supplied by the Corporation. By the end of 1952, about 12,000 farms had been electrified.

The Saskatchewan Power Corporation does not take the power line into the farmer's yard free of cost as does the Manitoba Commission, but charges the members of a group or district extension, approximately one-third of the cost of the necessary extensions running along road allowances, and the full cost of lines running from the road allowance into the farm yard. Maximum cost runs around $575. Saskatchewan users may, however, secure credit (to one only of each three farmers in a group) up to two-thirds of their share of the extension. This credit is repayable any time within a three-year period, with interest at five per cent.

Saskatchewan farm power costs are understandably somewhat higher than in Manitoba, where the available water power is not yet fully developed. The contract in Saskatchewan involves a service charge of $1 per month (none in Manitoba) and a minimum monthly charge of $5, plus three per cent education tax. Kilowatt hour rates are 8 cents per kwh for the first 45 kwh; 4 cents for the next 45; 3 cents for the next 45; and 2 cents for each kwh over 135. These rates are for the standard service of 5 horsepower capacity, where only a single farm dwelling is involved, and are the same as for homes other than farms.

RURAL electrification in Alberta is on an entirely different basis from that established in either Manitoba or Saskatchewan. Alberta, like the other two provinces, has a power commission, and its powers are similar to those of the Hydro Electric Power Commission of Ontario. In practice, however, it has not exercised its powers of expropriation, and its functions are principally regulatory and supervisory. Organized agriculture in Alberta has repeatedly demanded expropriation and public ownership, but without success.

Notwithstanding Alberta's abundant water resources, approximately 60 per cent of the electricity used in the province is steam or diesel-generated. Generating plants and main transmission lines are in private hands, the Calgary Power Company being the largest operator. Local distribution for rural electrification is predominantly in the hands of rural electrification associations, to which as of May 31 this year, 15,420 of the 20,445 rural users belonged. In all, there were 287 rural electrification associations, and by the end of this year it is expected that the total number of farm users in Alberta will have risen to about 23,500. In addition, there were, as of May 31, an additional 8,569 other farmers who were known to want electricity, but for whom extensions had not yet been built.

The rural electrification associations take the power from the main transmission lines of the private companies, build their own extensions, including the necessary substations and transformers, and so far have expended in the neighborhood of $12 million on such construction, to bring the power into their own yards.

Until this year the Alberta government guaranteed loans at 3½ per cent to REAs, up to 50 per cent of the cost of constructing the extension. Under the Rural Electrification Revolving Fund Act passed early this year, REAs may borrow up to 85 per cent of the cost of construction, which, at present costs, averages perhaps $1,100 per farm served. Borrowings are made from a $10,000,000 revolving fund and are repayable with interest at 3½ per cent at any time over a ten-year period. Each REA member must have furnished at least $150 in cash before a loan can be secured from the fund.

About four-fifths of the 84,000 farms in Alberta are estimated to be within 15 miles of power transmission lines. Estimated annual additions of new

Generally Speaking . . .

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farm customers is put roughly at 5,000, and it is expected that by 1960, electricity will have reached between 55,000 and 60,000 Alberta farms.

THE cost of obtaining electric power, whether wiring the buildings or purchasing household and farm equipment, is a direct cost. Such initial outlays sometimes prevent a farm family from enjoying the pleasures and benefits of electricity. Nevertheless, these initial costs are not, in the long run, the most important consideration, which is the saving of labor. The question is, therefore, whether electricity on the farm is *profitable.*

When you pay an electric bill, you pay for work, because electricity is energy. Therefore, the user of electricity exchanges kwh for human energy; and unless work can be done by electricity for less money than it would cost in wages to have it done by some person, the only advantage of using electricity would lie in its comfort and convenience. What are the facts?

Many prairie farms lack the opportunity to put electricity fully to work, that exists in areas where farming operations are more diversified. On straight grain farms, where no livestock or poultry are kept, there will be some advantage in an electric refrigerator, a deep freezer, a seed cleaner, grain elevator, electrically operated shop tools, fertilizer mixers, seed treaters and perhaps irrigation equipment for the garden or special seed plot. Broadly speaking, around two-thirds of the electric energy used even on a diversified farm, is required for the home, and most of the remainder is required in connection with livestock and poultry. Experience suggests that over the years these proportions will change, as farmers find more and more uses for electricity in the production of crops and livestock.

The problem is to determine how profitable it is to exchange an electricity hour (kwh) for an hour of human labor. Let's start with this: In the first place, a kilowatt hour is the energy needed to lift 2,665,200 pounds off the ground a distance of one foot, or 266,520 pounds (more than 133 tons) ten feet off the ground. Do you know of anyone who would or could undertake to do this much work in an hour? Further, do you know of anyone who would do it for five or six cents, which is about what a kwh of electricity might cost, at the most, anywhere in Canada.

In Michigan, the State College of Agriculture chose a well-electrified 300-acre farm, with a 23-cow herd, a small flock of chickens, and marketing 180 hogs each year, for a test of the economy of electricity. They used 23 meters on different kinds of equipment, and kept them there for a year. The home used 69 per cent of the energy during the 12 months and the farm equipment the remaining 31 per cent. The electricity for this farm equipment cost $82.60 for the year, which the college authorities calculated would pay a hired man for about 15 days.

Now try to imagine any man who in 15 days could grind 13.5 tons of feed, mix 37 tons of feed, shell 20 tons of corn, dry 16 tons of hay, take 61 tons of silage out of a silo, remove 210 tons of manure from the barn, milk 135,476 pounds of milk by hand, pump 292,125 gallons of water needed on the farm, ventilate the dairy barn, and heat the water required for the milkhouse. Some man!

If these figures are not convincing, let's look at some from Iowa, where the cost of electricity is more than in Manitoba. Would you be willing to elevate 4,000 bushels of grain by hand for 39 cents? Well, how about pumping 350 gallons of water per day for a whole year for $15.32? Perhaps you would rather water the hogs in a 15-sow herd for all of the five summer months, for $7.50, or milk 12 cows every day during the year for $7.20? Maybe you know of someone in town who would do 50 hours of welding for you, over a year's time, for $1.50?

OF course, the old adage applies here, too: figures don't lie, but liars can figure. If one gets too optimistic it is easy to buy more electrical equipment than can be made profitable on any individual farm. There isn't much profit in buying a water pressure system for the house, or an electric feed grinder, if all you do with the time saved is to stand and watch the electricity go to work. Grant if you like, the truth of Davies' lines:—

What is this life, if, full of care,
We have no time to stand and stare,

but perhaps one of the profits of electricity on the farm could be an occasional half holiday at the lake, when one could "stand and stare" all afternoon, along with the rest of the family.

All of this should remind us that farming, more than almost any other business one can think of, is a partnership between the farmer and his wife. The lady of the farm house customarily does much more than "keep house" for her family. The garden and poultry are often, if not generally, the responsibility of the farm wife, to say nothing of the dairy, or the fact that

"I'd like to catch those kids who gave her salted peanuts!"

meals are more numerous, washings heavier, ironing bigger, and cleaning necessary more often. Making the housework easier is one way of achieving an intangible kind of profit from electricity, which could become very real if it prevents sickness, saves doctor and hospital bills and makes rest and recreation easier to secure.

All in all, there isn't much doubt of the all-around value of rural electrification. Neither is there any doubt, on a well-managed farm, of the fact that it is profitable. The amenities of good living have come to the farm slowly. Heretofore, drudgery has been too much a part of farm life. The young folk have recognized this and have left the farm in many cases for no other reason, when they could have been better off financially had they stayed. From now on, the limit of rural electrification on the prairies may well be the limit imposed by the time required to develop power and build transmission lines. V

What Is the Cattle Cycle?

What makes cattle prices go up for some years and then decline for a series of years?

ALL livestock producers know that prices tend to increase for a number of years and then decline for another period of years. Not all, however, realize that this rise and fall of prices is fairly regular, that it is, in fact, a well-recognized cycle of approximately 15 years from peak to peak, or low to low.

The cycle varies with different kinds of livestock, the cattle cycle being the longest, principally because it takes longer from the time a cow is bred until the resulting calf is marketed as a two-year-old steer. This is probably the reason also why cattle prices reach their peak two or three years before cattle numbers are at their maximum.

The upswing in each cycle lasts from six to eight years, and the length of the decline may vary from four to ten years. Since Canadian cattle prices are influenced very largely by the price of our surplus cattle marketed in the United States, the behavior of the cattle cycle in that country is of great importance to us.

Since 1880 there have been five U.S. cattle cycles. In each case the number of cattle at the peak of the cycle has been about one-third larger than at the beginning, while the number at the end of the cycle after the decline, has been from 10 to 20 per cent less in each case than at the peak. In other words, numbers have gone up more than they have gone down, largely because of growth in population and, especially, the growth of industrialization and the consumer market.

No two cycles are exactly alike, but much the same thing happens in each instance. After a decline of several years in profits from cattle raising, large numbers of producers decide to increase the size of their herds because net returns are beginning to improve. It may be that the amount of feed grain and pasture is influential on many farms in bringing this about, particularly with beef cattle, since the trend of dairy cattle has been more or less steadily upward. As soon as farmers decide to increase their herd numbers they hold back calves and heifers from the market and the result is that marketings for slaughter purposes drop and reach a low point two or three years after the upswing has started.

Slaughter increases after the second or third year of the rise because more heifers and steers are ready for sale, and more calves and yearlings are sold. Indeed, cattle numbers tend to continue increasing two or three years after the peak of prices has been reached. At the peak of numbers all kinds of cattle are being marketed in large numbers, with a larger proportion of cows and calves than formerly; and when the cycle is going down, the marketings of cows are usually greater than at any other period in the cycle.

The present cycle in the U.S. began in 1949 when the numbers of cattle started to increase. By January 1, 1953, the increase had amounted to 17 million and brought the total of cattle numbers to 93.7 million head.

It was this operation of the cycle which produced the very high prices in 1951, when slaughterings reached a low point about two years after the upswing began. In 1952, four years after the cycle began, slaughterings began to increase, and in the first three months of this year they were 20 per cent greater than in 1952.

There seems good reason to believe that the present cycle will develop in a manner very similar to that of past cycles. Drought, reduction in feed supplies and other factors might force farmers to liquidate herds, but exceptionally favorable weather, on the other hand, could extend the period of the cycle and some believe that U.S. cattle numbers might eventually reach 100 million head or more. V

Britain Has Too Much Bacon

EARLY in August the British Ministry of Food reduced bacon prices, requested Denmark to hold up and store her surplus bacon, and permitted retailers to sell any off-ration bacon not required by their registered customers.

All of this occurred because the storage space available for bacon was full. In July the Minister of Food told parliament that up to 18 per cent of the bacon rationed was not being purchased. More bacon was eaten in the first half of 1953 than a year ago, but supplies during the first six months increased by 50,000 tons over receipts in 1952. To get rid of the surplus, the government, by reducing the price of bacon, increased the bacon subsidy by about 20 million pounds per year.

The National Farmers' Union of England and Wales is preparing for the decontrol of meats, and not long ago set up a special committee to deal with the marketing of home-produced meat in a free market. This committee will keep in mind the proposals for fat stock marketing put forward after joint study by the farmers' unions of England and Wales, Scotland, and Northern Ireland.

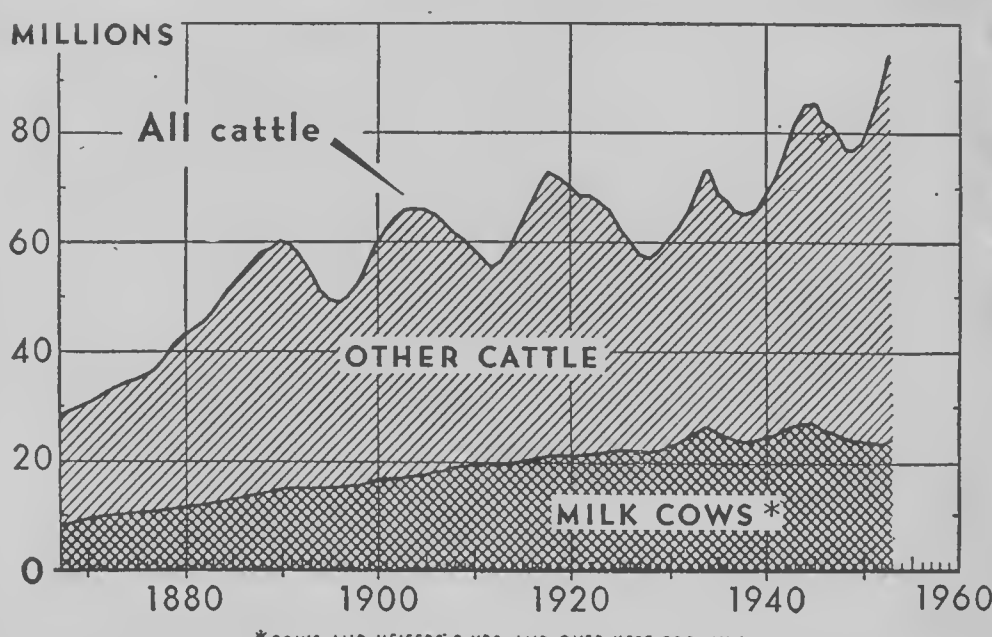
The British Farmers' Union has also invited the Canadian Federation of Agriculture to send representatives to a conference in London, on meat marketing, at which farm organizations from Australia and New Zealand will also be represented. CFA representatives will attend the meeting, although they see little hope of a market for Canadian meats in Britain at the present time, because of the disparity in prices between North America and the U.K. V

Where the Money Goes

A UNIVERSITY OF MINNESOTA study of 148 representative Minnesota farms from 1940 on, shows what happened to the dollars received by farmers in this group. Taking 1949 as the year probably representative of what may be experienced in the future, it is shown that 52 cents of the Minnesota farm dollar went for cash operating expenses, and ten cents was required for depreciation on machinery and buildings. The remaining 38 cents was divided among farm family living expenses which took 18 cents, retirement, life insurance and farm investment, which required 17 cents, and state and federal income taxes, which took three cents.

Commenting on these figures H. W. Herbison, North Dakota Agricultural College marketing agent says that gross income figures for farms can be very misleading to urban people who make income comparisons. Total farm income figures are often reported, but as a rule, not much more than one-third of this gross figure is left for real spendable income.

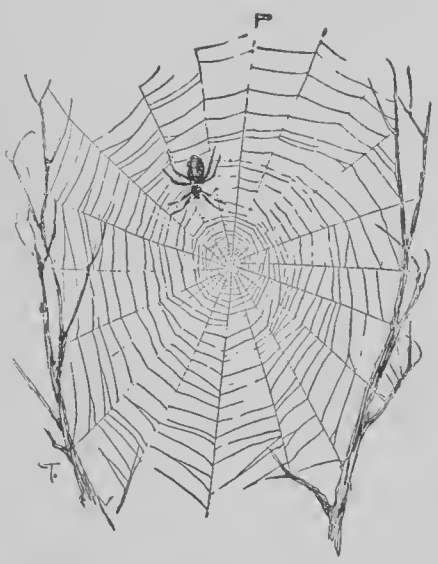
"In recent years North Dakota gross farms incomes averaged over $8,000 a year and ran up to $15,000 for the Red River Valley and the state's southwestern ranch country. That sounds like big money," Herbison says, "but if you were to skim off the top third of the farm sample, farmers net even closer to a quarter than a third of that." V



*COWS AND HEIFERS 2 YRS. AND OVER KEPT FOR MILK

This USDA chart of cattle numbers in the U.S. since the 1870's clearly indicates the five cycles experienced and the beginning of the cycle we are now concerned about. As cattle numbers go up, prices come down until a scarcity develops, which pulls prices up to encourage more production.

The Country Boy and Girl



SILVERY delicate spider webs glistening in the morning sun! What a wonderful engineer is the spider to weave such a perfect silken web of cables and cross pieces strong enough to withstand high winds and to trap any insect that flies into it. The spider waits quietly down at a corner of the web for some unlucky mosquito, fly or grasshopper to get caught in it. When the web shakes, the spider rushes out, stings the insect and spins a thread to bind it so that it is helpless, and then moves the insect off to some corner of the web, ready for a meal.

The spider's spinning organs are situated near the end of the abdomen. The silk hardens as soon as it comes into the air. When the spider wishes to make a silken thread downwards, he fastens a line to the object on which he is resting, then lets himself drop downwards spinning, fast or slow, as he goes. If he wishes to return he can climb up the line. When he wishes to cross from one point to another, he spins a long thread and waits until a current of air carries this sticky thread to where it strikes some object and sticks there. Now the spider has a silken bridge to cross and recross as he goes about constructing his web.

Perhaps the most wonderful thing about spiders is that they use their silken threads to travel hundreds of miles. The spider climbs to some high spot, then raises up on the tips of his feet and spins out a long thread. When the thread is long enough, the air lifts it up, the spider lets go his hold and sails through the air.

Ann Sankey

The Blue Feather

by **Mary Grannan**

IF you should ever see Annie wearing her straw sailor hat, you'll see the blue feather. It's the most beautiful and bluest blue feather in the world. Annie is very proud of it, and rightly so. It's from a bluebird's tail.

It happened like this. Annie was sitting on her tricycle which was on the sidewalk, just outside Annie's house. Annie always sat there while the milkman made his rounds. She liked to watch the milkman take the shining white bottles in their metal baskets, out of the refrigerated truck. She liked to watch him set them on the back steps along the street.

On the particular morning when this all began, Annie heard a sudden fluttering of wings, going past her head. Then she heard the soft pitter-patter of cat feet. The cat feet belonged to the yellow cat who lived next door, and the fluttering wings were those of a frightened bluebird.

"Scat, yellow cat, scat," said Annie jumping from her tricycle. "Oh, you wicked cat, you've already had that bluebird in your mouth, haven't you? I can see a little blue feather on your whiskers. Let me tell you something, yellow cat, you'll not catch that bird."

And then Annie saw the frightened and wounded bluebird fly in through the open back door of the refrigerated car. The door slammed shut, and the car rolled away. The milkman had closed the door by means of a button in the front seat. Annie had not noticed the milkman getting into his car. She'd been too busy scolding the cat. She ran shouting down the street after the milk truck, but the driver did not hear her. He rounded the corner and disappeared from sight.

"Oh, what shall I do?" asked Annie of herself. I've got to save that little bluebird. He'll freeze inside of that milk car. He flew in there to get away from the cat. He didn't know what he was doing."

Annie saw a traffic policeman at the corner of the next block. She raced down the street toward him, and tugged at his sleeve.

"Go away, Annie," said the kindly officer, "don't you know I'm busy? Can't you see that I've got to guide the traffic?"

"Yes, sir, but please, sir, this is a matter of life and death. Please listen to me," said Annie.

The officer, seeing the anxious look on Annie's face, stopped traffic in all directions. All cars stood still, while Annie explained the bluebird's predicament.

"Well now, that is serious, Annie," said the officer. "I'll get one of these folks that I've held up, to drive you down to the Silverbell Creamery. It was Truck No. 19 that came around the corner from your street. The driver was on his way back to the dairy. He'd finished his delivery for the day. He told me so, as he passed by. Tell them I sent you, and that you want them to open up Truck No. 19, right away. Good luck to you, Annie!" The officer, smiling broadly, helped Annie into one of the waiting cars, and the good-natured owner, on hearing Annie's story, delivered her, post haste at the creamery.

Annie waited fearfully, while the back door of Truck 19 was opened. The dairyman shook his head, sadly. "Your little bluebird is here alright, Annie, but it looks to me as if he were frozen. He's lying on his back on the floor of the truck."

"Oh no," sobbed Annie, "I can't believe it. Please hand him out to me, Mr. Milkman. He may be alive."

The man handed the bluebird to her. She cried out joyfully, "His wing flicked a little. He's still alive. Thank you so much, sir. I'm going to take him to the doctor."

Annie raced up the street, across the park, and dashed up the stone steps of the brick house at the corner, and rang the bell. "Is the doctor in?" she asked the nurse.

"Yes, Annie," said the nurse, "but he's talking on the telephone."

"I've got to see him," said Annie. "It's a matter of life and death."

The surprised nurse let the excited little girl into the hallway. Annie knew her way to the doctor's office for she and the doctor were old friends. He was placing the receiver of the telephone on the hook when Annie burst in.

"Well, Annie," said the doctor, "this is a surprise. What's the matter?"

"It's this poor little bluebird. Please save him, Doctor. He's had such an unhappy time. The yellow cat chased him, and he flew into the milk truck. I went to the dairy and got him. He's almost frozen, but he's alive. Please, will you see if you can save his life? I've tried so hard, and now I don't know what to do."

Annie laid the bluebird on the table. The doctor picked him up. "He's still alive. Excuse me, Annie. I'll take him into my consulting room, and I'll see what I can do."

A few minutes later he returned. The bluebird's eyes were open. His right wing was in a splint. "He's going to be all right," said the doctor. "We got him thawed out, and we've fixed his wing. You'll need to look after him a few days though, before he's ready to fly again."

"Thank you so much, Doctor. "I'll take care of him," said the little girl. She did. In a week's time, the wing was mended, and Annie took the little bird to the park, and let him go.

Two days later Annie waked in the morning to find the beautiful blue tail feather on her window sill. She is very proud of her gift from the bluebird, and wears the feather on the brim of her straw sailor hat.

Sketch Pad Out-of-Doors

***No. 19 in series—by* CLARENCE TILLENIUS**

THE crow is probably the one bird that every man, woman and child in the prairie provinces can identify, as far away as they can see it. Its appearance is unmistakable, also its voice.

Many people hate the crow, and with reason. I have seen examples of the destruction he wreaks among nesting birds in spring and summer. Still, on every farm toward mid-March people begin to listen for and welcome the cheerful "Caw! Caw!" That is, to them, nature's announcement that spring is coming.

If you have a desire to draw birds, the crow is an excellent subject on which to work. The identification of birds lies largely in their silhouettes. The crow's outline is firm and precise. Furthermore, he is a great actor and when he is expressing an opinion his whole appearance seems to give emphasis to what he is saying. A most interesting fellow to study!

And another thing! Many birds have a most intricate and complicated feather pattern, extremely difficult to render successfully without years of practice. The crow's glossy sable coat relieves you of any worry on this score. To give the roundness and solidity of his body you must look for the bluish highlights on his plumage. You will have to look carefully, for at first glance he seems to be solid black all over. You *can*, in fact, make a very convincing drawing simply by doing him in this way—a plain black silhouette. The two top-corner sketches are an example of this method. These sketches, by the way, are quick studies done with a brush and India ink.

If you wish to study crows in flight, put up a stuffed owl or hawk where crows can see him. Then hide in the bushes nearby. You will see some marvellous air acrobatics and probably learn several new things about the crow as well. One thing you will discover, if you did not know it already, is that crows are among the cleverest of birds.

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Need for Extension

THE briefs presented at the community hearings of the Saskatchewan Royal Commission on Agriculture and Rural Life should be a guide to rural thinking in that province. If so, it is evident that Saskatchewan farmers are making too little use of the services available to them from all of the federal and provincial institutions established for their special benefit. If our information is correct, not a single brief at any of the hearings suggested any awareness of an agricultural extension problem in the community it represented.

We find this fact difficult to understand. Why should such a situation exist in a province with an excellent faculty of agriculture at its provincial university? There are five experimental farms and stations and at least a score or more of local illustration stations. There is a provincial department of agriculture that is generously supported with funds and staffed by a group of interested, devoted and qualified personnel, not to mention a special department of extension at the University which, until recently, operated for 30 years in the field of agriculture. In addition to these agencies, there are scores of local and district conservation and agricultural improvement boards in Saskatchewan.

The answer is not that there is no need for further production information for the farms of Saskatchewan, or of any other province in Canada. On the contrary, there is a growing feeling among those who have an opportunity to observe the progress of agricultural production over wide areas, that the wealth of new information steadily coming forward, is either not reaching farmers quickly enough, or it is not being applied by farmers to their advantage. Indeed, there is good reason for believing that the flow of new and useful information is outrunning the ability of extension personnel to absorb it and pass it on to producers.

There is no rural community in the prairie provinces where an extension problem does not exist. Why do grain yields remain almost static, except in years of abnormal rainfall, if, in the drier areas, an extra inch of moisture conserved in summerfallows means, on the average, an extra five bushels of wheat the following year, or if a weedy crop cuts yields anywhere up to 40 per cent, or if fertilizing at the recommended rates per acre means, on the average, about five extra bushels per acre? Part of the answer is that too few farmers ever visit an experimental station, or even utilize the services of their district agriculturist or agricultural representative. Fewer still take the trouble to telephone an inquiry, or write a letter.

Any useful information received should be worth a minimum of five dollars and sometimes a hundred or more. In the four western provinces there are at least 25 major public institutions where reliable information can be obtained, usually from specialists, and without charge; and these are in addition to several hundred local and field officers of the federal and provincial departments of agriculture. There is no dearth of information with which to improve the average level of farm living in western Canada by a minimum of at least 10 and on some farms 20 per cent or more. Such information should be worth going after, when it can be had for the asking. V

The Two-Price System

THE provision that the six basic crops (including wheat) must be supported at 90 per cent of parity under the amended Agricultural Adjustment Act in the United States, expires at the end of 1954. The problem of what legislation to recommend to Congress, having in mind the wheat surplus now in hand, is causing Secretary of Agriculture, Ezra Taft Benson, "furiously to think." To assist him he set up a special wheat advisory board, which has recommended a two-price policy for wheat.

Under such a program, producers would be given a quota covering their share of the 700 million bushels required annually for domestic use; and for the amount of this quota they would be guaranteed 100 per cent of parity. Any additional wheat they produced would be sold on the export market for what it would bring. The producer would assume his own responsibility for the amount he chose to grow for export. The government, in turn, would be relieved of the responsibility of subsidizing wheat for the export market.

The New York Times comments that "the record of the system is certainly not one calculated to produce great enthusiasm," and recalls the McNary-Haugen legislation of the Twenties, which "rested basically upon the economic concept of the two-price system," and drew two presidential vetoes. The paper suggests that such a policy, if applied to wheat, might have unfavorable consequences to other branches of agriculture, and concludes that "the task of reconciling any variation of the two-price system with a genuinely liberal foreign trade policy, would tax human ingenuity to the utmost."

ALSO on the subject of wheat, the U.S. press has been speculating on the meaning of the wheat farmers' recent vote in favor of the quota system. One New York Times staff writer began a recent article by stating: "The belief that farmers favor less governmental interference in their operations having been disproved by the overwhelmingly affirmative vote by growers in a referendum of wheat controls . . . it is now apparent that the farm policy of the Roosevelt and Truman administrations will be continued with only slight variations . . . " In the same issue, however, a dispatch from Omaha, Nebraska, begins by saying that "the only thing proved . . . (by the vote) . . . is that American farmers, being totally sane, would rather receive $2.20 for a bushel of wheat than $1.20," and adds later that "the issue . . . was no more complex than if a judge were to ask a prisoner at the bar whether he preferred to do his time on bread and water, or on filet mignon. The wheat farmers chose filet mignon."

So they did, but in doing so, they also chose to grow sixteen million fewer acres of wheat. It is worth noting that for this year's crop U.S. farmers seeded 78.6 million acres; and for the eight years ending with the 1952 crop, they harvested an average of 1,173 million bushels of wheat from 69.7 million acres, and exported an average of 404 million bushels. This was 269 per cent of the quantity exported in the next largest eight-year period (1922-23—1929-30) since 1921. Canada, on the other hand, has exported only 316 million bushels in the more recent period, or 107 per cent of our exports in the earlier one. Likewise, our production was up only seven per cent as compared with 43 per cent in the U.S. To the extent that there is a real surplus of wheat, therefore, it is not chargeable to the Canadian producer. V

Fall of Commodity Prices

WHEAT is an important commodity in international trade, that is normally sensitive to impending changes in the price level. At this time, when Canada, along with other countries, is entering a new International Wheat Agreement, it is a good thing to recognize the fact that the trend of world commodity prices has been downward since early in 1951.

A British writer recently commented that war is "a champion begetter of purchasing power." In other words, war creates inflation. During World War II, inflation was held in check by a vast network of controls. After the war, when emphasis could be turned from guns to butter, the pent-up forces of inflation were turned loose. Strong impetus was given to rising prices by the United States, where, to meet the repressed demands of 150 million prosperous people, and those of a war-ravaged world for the materials and tools of rehabilitation, it was deemed wise to give free reign to enterprise and prices. In Canada, controls were lifted more gradually, and in Britain more gradually still. Canada could not for long travel in a different economic direction, or at a greatly different speed, from that of the United States, because of the close ties between the two countries.

DURING 1946 and 1947 the United States enjoyed a riot of productivity, and amazed, not only the rest of the world, but themselves, by the immensity of their achievement. By 1948 the gap between the demand for, and the supply of, consumption goods had been filled sufficiently to create a little slack here and there. The upward pressure on prices for some commodities eased off and downward tendencies developed. Then came Korea with its potential threat of a third world war in 1950. The corrective movement toward deflation was reversed for a period of from six to nine months, and was only resumed—from a peak higher than that of 1948—early in 1951.

Between 1937 and 1952 very substantial increases in the production of almost all leading commodities entering world trade had taken place. Decreases were recorded, among major world commodities, only for cotton, tin and coffee.

Though the rate of increase in the output of industry and agriculture throughout the world had slackened off, the actual output of both in 1952 was at a record high level. Some observers believe that the downward movement of prices is about to level out, but no one really knows. What is still to be determined is the level of production which can be sustained by demand, under the conditions imposed by the atmosphere of a cold war.

WHEAT occupies a unique position among commodities entering into world trade. None of the other main commodities is a necessity in the same sense, or to the same degree. Of the two most universal non-perishable foods, wheat and rice, wheat is the more widely grown. As a food, it operates on a market that is comparatively inelastic, because the individual person can eat only so much of it, in any form. Further, as a country prospers and people are able to vary their diets, the tendency is to eat less of staples, such as wheat and potatoes, and more of the less starchy meats, fruits and vegetables. Nutritional research in recent years has encouraged this tendency. Nevertheless, the basic position of wheat remains unchanged, and because wheat moves to market in those parts of the world where most of the international trading takes place, it has long been recognized as a sensitive barometer of prices.

Since the 1945-46 crop year, Canadian wheat producers have been shielded from the effects of this traditional barometric function of wheat prices. For a time the agreement with Britain took a sizable portion of Canadian surplus wheat out of the show window of the international market. Then came the International Wheat Agreement, which has now been renewed for a further three-year period. It is significant also, that to some extent in the earlier years, but more especially during the four years of the I.W.A., the U.S. agricultural price support program, which guaranteed the U.S. wheat producer a price at, or above, the world price, virtually made the maximum I.W.A. price the effective minimum as well. For the Canadian producer, a factor of primary importance has been the existence of the Canadian Wheat Board with its system of pooled prices. Without such a board, membership in I.W.A. would have been impracticable for Canada.

UNDER the new three-year Wheat Agreement it cannot be expected that the maximum price will continue to operate as the effective minimum price. Britain, the largest purchaser under the former Agreement, is not a member of the three-year Agreement. Regardless of what significance this withdrawal may possess, price-wise, the fact is that there is much more wheat in the world than has existed in recent years. Already, Britain has been able to buy, from Argentina, 80,000 tons of wheat for about $1.84 per bushel. Wheat prices have actually broken below this figure at Chicago—and largely recovered. What the future of wheat prices may hold for the Canadian producer, we do not know, but much will depend on the course which the United States follows in disposing of its huge surplus. In any event, the price of wheat cannot continue indefinitely to disregard the general price level. V